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See Page 64.



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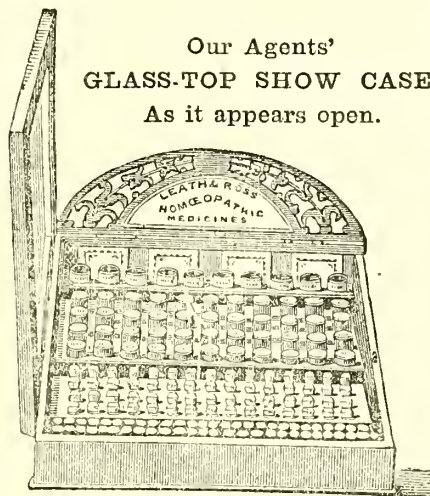
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GLASS-TOP SHOW CASE,  
As it appears open.



TRADE PRICE £4 4s.  
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Agents for L. & R.'s Medicines are now established in every town of any importance in England, some of the principal towns in Ireland and Scotland, several of the British Colonies, and India and America. Upwards of 1,400 persons have accepted the Agency, and many have found this branch a profitable auxiliary to their other business.

**THE NEW FAMILY CHEST**  
Contains 28 Bottles of the most useful Homoeopathic Medicines, a Guide, giving the treatment of all common complaints, the uses of the Medicines, proper doses, &c. In the lid are the two externals most in use, viz., Arnica and Calendula. It can be fitted to hold either Pilules or Tinctures. Price 25/-; trade price, 16/8.

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**GLOBULES**—Medicated any strength up to the 30th potency.

Sixpenny Tubes, 3/- per dozen.

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Report of the Judges at the International Exposition, Philadelphia, 1876 :  
**“NOVELTY, GREAT VALUE IN PHARMACY, UNEQUALLED  
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# PETROLEUM **VASELINE** JELLY.

**CAUTION.**—It having been brought to our notice—

- 1ST. That certain parties are adulterating our Vaseline with wax, &c. ;
- 2ND. That a spurious article is being offered for sale as Vaseline ;
- 3RD. That Vaseline sent out in jars by Wholesale Houses sometimes becomes impregnated with the dye contained in the coloured paper with which the jars are covered ;

We beg to notify the Trade that we are the **Sole** Manufacturers of Vaseline ; that the process by which it is made is protected by Letters Patent, which belong to us ; and that the word itself, “Vaseline,” is registered as our Trade Mark. And in order to maintain the high standard for purity and excellence of manufacture ; to prevent the occurrence of any such accident as referred to above ; to protect the Trade against adulteration, and to insure their getting the genuine article, we are putting it up in

**2-oz. and 4-oz. bottles, and in 1-lb. and 5-lb. tins,**

With our Name and Registered Trade Mark stamped thereon.

Every Pharmacist knows that it is impossible to make a satisfactory homogeneous ointment by mixing with a lard which is “grainy.” Paraffine adulterations, or imitations of Vaseline, may be distinguished by their odour, taste, and by the grainy or crystalline structure, which is very evident to the eye when compared with the jelly-like smoothness of pure Vaseline.

**We beg to call attention to the following Net Price List  
 of our Vaseline Preparations :**

<b>REGISTERED</b>	<b>VASELINE FOR MEDICINAL USE</b>	}	Bottles, in fancy card cases, 3 sizes, 8s., 16s., and 33s. per dozen ; in boxes (wood) of 1 dozen and of $\frac{1}{2}$ dozen.
	<b>POMADE VASELINE FOR THE HAIR</b>		
	<b>VASELINE GOLD CREAM</b> . . .	}	Glass Pots, 2 sizes, 8s. and 16s. per dozen ; in boxes of 1 dozen and of $\frac{1}{2}$ dozen.
	<b>VASELINE CAMPHOR ICE</b> . . .		
	<b>VASELINE TOILET SOAP</b> . . .	}	Fancy Paper Boxes, 8s. per dozen ; in boxes of 1 dozen.
	<b>VETERINARY VASELINE</b> . . .		
			{ 9s. per dozen Tablets, less 15% discount ; in boxes of 3 tablets.
			{ 1-lb. Bottles, 24s. per dozen ; in boxes of $\frac{1}{2}$ dozen.

All the above articles can be obtained of Messrs. Maw, Son & Co., and all Wholesale Houses in London ; Messrs. EVANS & Co., of Liverpool ; FERRIS & Co., Bristol ; HATRICK & Co., NEW APOTHECARIES' Co., and BROWN BROS., Glasgow ; MACKAY & Co., Edinburgh ; CLARKE & McMULLAN, Belfast ; and of the Manufacturers.

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**JUJUBES,**

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The merits of these articles have now become widely known. Prepared by this process Jujubes are rendered less adhesive, much brighter in appearance, and may be kept for long periods without change.

BLACK CURRANT	LICHEN	MIXED FRUITS	PECTORALE	RASPBERRY	TAMARIND
GLYCERINE	LIQUORICE	MAGNUM BONUM	PINE	ROSE	VOICE

**2/- per lb.,** or in tin boxes, 6d. size, 4/-; 1/- size, 8/-.

*All the above Tins are neatly wrapped ready for sale. The One-Pound Tins are returnable at 6/- per dozen.*

**GLYCERINE, VOICE, TAMARIND (and all other) PASTILLES, 2/2 per lb.**

Or in 6d., 1s., and 1-lb. tin boxes, 4/4 and 8/6 per dozen.

GUIMAUVE.....2/6 per lb., in 1/- and 1 lb. tin boxes, 8/- per dozen.

DELECTABLE.....2/4 per lb., or in 6d. and 1/- tin boxes, 4/4 and 8/6 per dozen.

CRYSTALLIZED FRUIT PASTILLES.....2/- per lb. | CRYSTALLIZED JUJUBES (Mixed).....1/8 per lb.

*A Sample of any of the above Jujubes, &c., sent free by post if desired.*

## SUPERIOR UPRIGHT SHOW CASES.

The frames are fitted with Glass Shelves, Silvered-glass Backs, and are lettered in Gold, with three Glass Dishes to display three kinds of Jujubes or Pastilles. Price 42/- each. Size, 21 in. high, 10 in. broad, and 8 in. deep.

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DAILY



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**An Adult's (not an Infant's) Food. The BEST DIET for Invalids.**

*(Excellent for Nursing Mothers; produces ample supply of good Milk.)*

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From Dr. FAIRBANK, Physician to H.R.H. Princess Christian.—"Windsor, December, 1878.—Easily digestible and highly nutritious. It makes excellent puddings and OMELETTES."

From H. C. BARTLETT, Ph.D., F.C.S.—"Laboratory, 39 Duke Street, Grosvenor Square, November 26, 1878.—'James's Daily Food' is composed of the most nutritious Farinas. Possesses special stomacheal properties, which render it easy of assimilation, and considerably enhance the dietetic value of its flesh-forming constituents."

From W. EDGAR BUCK, M.A., M.D. (Cantab.), M.R.C.P. (London), M.O.H.—"School of Cookery, Leicester, November 9, 1878.—I have examined 'James's Daily Food,' and find it extremely nutritious, satisfying, and digestible. It makes good puddings. It would be an admirable food for persons of impaired digestion, owing to the judicious admixture of *stomachics* in it. I should be glad to see Lentils more eaten, as they are an excellent substitute for meat, and your Food is the best preparation of Lentils I have seen."

From WM. STRANGE, M.D., Physician to Wor. General Infirmary and M.O.H.—"1st September, 1878.—A wholesome and GRATEFUL Food. From its composition I should say that it is peculiarly suited to the diet of children and persons of weak digestion. Taken in some quantity, it produces a very mild operation of the bowels, which to many will be a great advantage."

From W. ADAMS, Esq., F.R.C.S.—"London, 31st March, 1878.—More nutritious than any with which I am acquainted; forms, with milk, a perfect food for invalids and children, and all adults, as an evening meal."

Every medical man who has examined and tried it has pronounced it far superior to the Revalenta, or any other preparation of Lentils.

*Retail of all best Chemists, in Tins at 10d. and 1s. 6d.*

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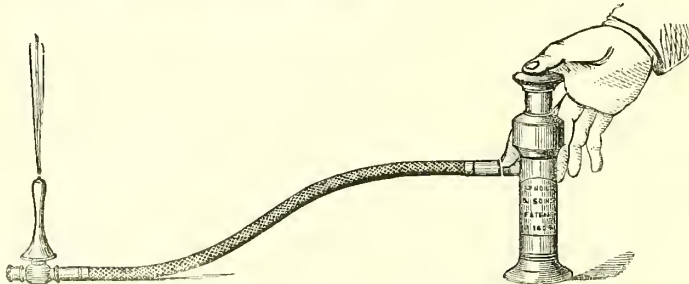
**"SIMPLEX" ENEMA.**

Suggested by Mr. SHEPARD, M.R.C.S., &amp;c.

**WHOLESALE PRICES.**

Patent Simplex Enema,  
No. 4 Quality,  
in Metal Case, complete,  
3/6.

Patent Simplex Uterine  
Douche,  
No. 4 Quality,  
in Metal Case, complete,  
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**RETAIL PRICES.**

Patent Simplex Enema,  
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in Metal Case, complete,  
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Patent Simplex Uterine  
Douche,  
No. 4 Quality,  
in Metal Case, complete,  
6/-.

**NOTICE.**—ARNOLD & SONS, at the suggestion of several leading members of the Profession, have introduced a cheap form of their Patent "Simplex" Enema, which will be found to supersede all other Enemas. It is acknowledged to be the most simple, durable, and effective instrument yet introduced.

*Vide* "THE LANCET," Aug. 17th, 1872; "BRITISH MEDICAL JOURNAL," June 22nd, 1872; "MEDICAL TIMES AND GAZETTE," June 22nd, 1872; "MEDICAL PRESS AND CIRCULAR," June 26th, 1872.

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By Appointment to Her Majesty's Government, St. Bartholomew's Hospital, &amp; the Principal Provincial &amp; Colonial Hospitals, &amp;c.

35 &amp; 36 WEST SMITHFIELD, LONDON, E.C.

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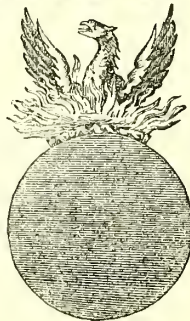
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OF ALL

Soft Soap, Greases, Linseed

**PAINTS IN TINS****TRADE**

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**COLOURS, AND VARNISHES**  
KINDS.

Meal, and Crushed Linseed.

**MIXED FOR USE.****MARK.**

Colour of Paint.

All Colours in 1, 2, 4, and 7 lbs.

**VARNISHES OF ALL SORTS IN TINS OF ALL SIZES.**



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LONDON, 1862.

PRIZE MEDAL,



PHILADELPHIA, 1876.



### LOW'S FRENCH EXTRACTS, &c., viz.:

per lb.				per lb.				per lb.			
Ext. Cassie	...	...	9/6	Ext. Rézéda	...	...	9/6	Ext. Tubereuse	...	...	9/6
„ Jasmin	...	...	9/6	„ Rondeletia	...	...	8/-	„ Violet	...	...	15/-
„ Jonquil	...	...	9/6	„ Rose	...	...	9/6	„ Verbena	...	...	8/-
„ Lily of the Valley	...	...	9/6	„ Rose Geranium	...	...	9/6	„ White Rose	...	...	10/6
„ Magnolia...	...	...	9/6	„ Spring Flowers	...	...	9/6	„ White Lilac	...	...	9/6
„ Orange Flower	...	...	9/6	„ Stephanotis	...	...	9/6	„ Wood Violet	...	...	13/6
„ Patchouli	...	...	9/6	„ Sweet Briar	...	...	9/6	„ Wild Rose	...	...	9/6
„ Queen of the Alps	...	...	9/6	„ Tea Rose...	...	...	9/6	„ Ylang Ylang	...	...	9/6

ARE NOW REDUCED IN PRICE, AS ABOVE.

These Extracts have always had the highest reputation; they are all of our own manufacture, are guaranteed **pure** and of **triple strength**, and will compare favourably with any in the trade.

N.B.—Owing to the failure of the **VIOLET** crop, however, this Extract is advanced in price, and will probably go higher still. Purchasers are warned against the spurious Ext. Violets already in the market.

### FAMILY BROWN WINDSOR SOAP,

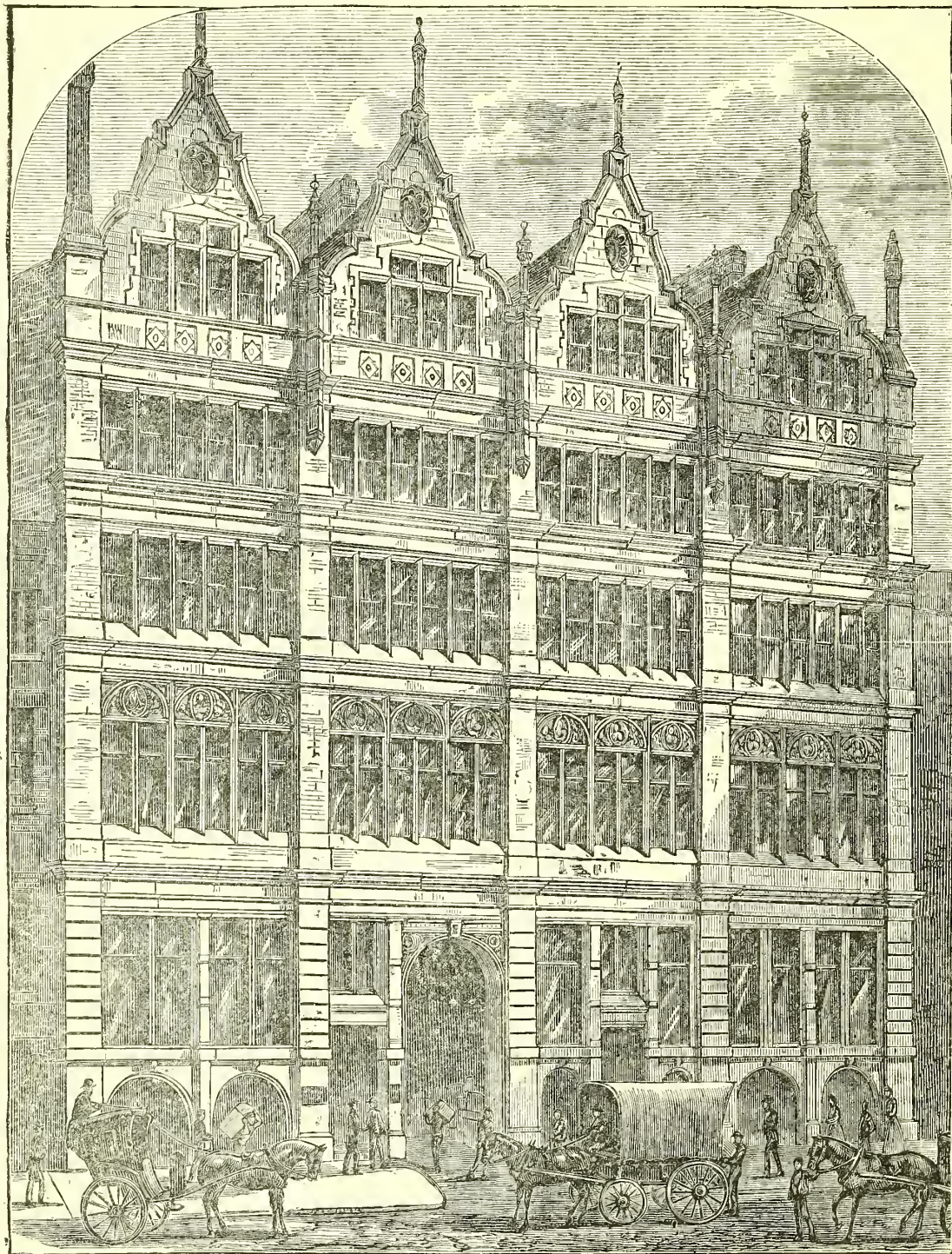
At 60/- per cwt., Genuine, and sweetly perfumed.

This Soap is recommended to the Trade as the best value that can be obtained. Embossed Squares, 6 to lb., and in 14-lb. Boxes.

CASH DISCOUNT, 10 PER CENT.

**R. LOW, SON & HAYDON,**  
 Perfumers, Toilet Soap Makers, and Brush Manufacturers,  
**330 STRAND** (OPPOSITE SOMERSET HOUSE) **LONDON.**





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ALDERSGATE STREET, LONDON.



**S. MAW, SON & THOMPSON'S**  
**NEW**  
**SHOW ROOMS**  
**ARE NOW OPEN,**  
CONTAINING COMPLETE SAMPLES OF ALL KINDS OF  
**DRUGGISTS' SUNDRIES,**  
**SURGEONS' INSTRUMENTS, &c.**

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*SURGEONS' INSTRUMENTS, ETC. - - - GROUND FLOOR.*  
*DRUGGISTS' SUNDRIES, ETC. - - - FIRST FLOOR.*  
*SPONGE ROOM - - - - - THIRD FLOOR.*

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Open from 9 a.m. to 6 p.m. A Visit is Solicited.

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**7 TO 12 ALDERSGATE STREET, LONDON.**

# CLARKE'S WORLD-FAMED "BLOOD MIXTURE."

## COPY OF OFFICIAL CERTIFICATE,

ACCORDING TO THE LAST TRADES MARKS' ACT.

TRADE MARKS' REGISTRY OFFICE: LONDON, 4th May, 1878.

**FRANCIS JONATHAN CLARKE, Esq.**

SIR,—I have to inform you that, pursuant to Rule 21 under the Trades Marks' Registration Act, 1875, the Trade Marks applied for by you in application No. {3,270 and 3,272-3-4-5}, and duly advertised in No. 20 of the Trade Marks' Journal, have been registered in your name in class 3.—I am, sir, your obedient servant, H. HEADER LACK, Registrar.

Mem.—3,275 is the number of Mr. F. J. Clarke's Trade Mark, "BLOOD MIXTURE."

### IN CHANCERY.

LORD CHANCELLOR.  
VICE CHANCELLOR MALINS.

1873. C. No. 109.

Between **FRANCIS J. CLARKE, Plaintiff,**

AND

**GEORGE CLARKE, Defendant.**

### CAUTION.

**WHEREAS**, the Vice-Chancellor, Sir Richard Malins, on the 21st day of July, 1873, upon the application of Francis J. Clarke, of High Street, in the City of Lincoln, Chemist, the plaintiff in the above suit, awarded a perpetual Injunction, restraining the defendant, George Clarke, of Manchester, his servants and agents, from using the words "Blood Purifying Mixture," or any other imitation or colourable imitation of the Plaintiff's Trade Mark, "BLOOD MIXTURE," in or upon any bottles offered for sale by or for the defendant, or on any labels, handbills, or advertisements printed, used, or issued by or for the defendant, and from in any other way representing any medicine, compounded by or for him, to be "Blood Mixture," and from doing any act or thing to induce the belief that medicine compounded by or for the defendant, is "Blood Mixture," or a medicine compounded by the plaintiff.

And it was Ordered, that the defendant, at the request of the plaintiff, and in the presence of some person to be appointed by him for that purpose, destroy all wrappers, handbills, bottles, advertisements, and circulars in the defendant's possession, or under his control, containing the plaintiff's said trade mark, or any colourable imitation thereof.

**ALL PERSONS ARE THEREFORE CAUTIONED** against purchasing, selling, exposing for sale, or otherwise dealing in any medicine purporting to be "Blood Mixture," not compounded by the plaintiff, Francis J. Clarke, in bottles or wrappers, or with other accompaniments bearing facsimiles or fraudulent or colourable imitations of those invented and used by the plaintiff, the said Francis J. Clarke. Retail dealers, as well as manufacturers, are equally liable.

Dated this 28th day of July, 1873.

H. K. HEBB, Plaintiff's Solicitor, LINCOLN.

### CAUTION.—PUBLIC APOLOGY.

## CLARKE'S WORLD-FAMED BLOOD MIXTURE.

**I**, CHARLES MONTAGUE CLARKE, do hereby acknowledge that I, under the SPURIOUS title of Doctor of Medicine, have illegally infringed and pirated your Trade Mark, "BLOOD MIXTURE," and copied your advertisements, labels, handbills, and "Caution," with intent to deceive the public.

And I, GEORGE HERBERT CLARKE, of 130 SHOREDITCH, LONDON, do hereby acknowledge that I, under the title of Pharmaceutical Chemist, have prepared and sold for the said Charles Montague Clarke a certain compound called Blood Renovator.

Now we, the said Charles Montague Clarke and George Herbert Clarke, do hereby, in consideration of your consenting to offer no evidence against the said George Herbert Clarke on a **TRUE BILL FOUND AGAINST HIM**, under the Merchandise Marks Act, by the Grand Jury of the Middlesex Sessions, on the 6th day of October instant, undertake and agree to discontinue such practices, and to hand over to your Solicitor forthwith all wrappers, handbills, advertisements, circulars, and bottles containing the stuff, in our power or control, relating to the said *spurious compound* called "Blood Renovator," and we humbly apologise for having resorted to such practices,

CHARLES MONTAGUE CLARKE.

GEORGE HERBERT CLARKE.

SIGNED by the said Charles Montague Clarke and George Herbert Clarke, on the 13th of October, 1874, in the presence of HENRY BULL, Clerk to Mr. J. SEYMOUR SALAMAN, 12 King Street, Cheapside, Solicitor to the Trade Mark Protection Society. To Mr. F. J. CLARKE, Lincoln, Proprietor of Clarke's World-Famed Blood Mixture.

**CAUTION.**—Mr. CLARKE will take immediate proceedings against all persons pirating his Trade Mark—"BLOOD MIXTURE" (fully protected under the Trade Marks' Registration Act of 1875), Labels, Wrappers, Bills, or Advertisements, or in any way infringing his rights.



# OZOKERINE

(REGISTERED).

A new preparation PERFECT as a BASIS for OINTMENTS, of admirable consistency, bland, emollient, antiseptic, and healing.

## CANNOT BECOME RANCID.

"Moderate in price, and deserving a careful trial."—BRITISH MEDICAL JOURNAL.  
 "A valuable and useful substance and will in all probability be very largely used."—MEDICAL TIMES AND GAZETTE.  
 "Will take a high position among our other pharmaceutical preparations."—MEDICAL PRESS AND CIRCULAR.  
 "Likely to prove useful as a dressing for wounds and excoriations."—PRACTITIONER.

**OZOKERINE** is a clear, pale yellow, very slightly fluorescent body, composed of hydrocarbons akin to Paraffine in their chemical characters. It is produced from Ozokerit, or Earth Wax, by the separation of lighter and denser hydrocarbons, and subsequent purification by processes which remove smell and taste, and yield it in the pleasant form which has already gained for it a preference before other similar bodies.

**OZOKERINE** has been used with remarkable success as a simple dressing for wounds, its mild and healing properties rendering it peculiarly grateful to the patient.

**OZOKERINE** is unsurpassed as an unguent basis; unchangeable in itself, except by the action of the most powerful chemical agents, it preserves other bodies with which it may be incorporated from all tendencies to decomposition. The superiority of Ozokerine to lard in this respect cannot be over-estimated.

**OZOKERINE**, in addition to the above advantages possesses that of being moderate in price, which marks it out as a preparation destined to supersede all other articles hitherto used for similar purposes.

Each Tin is stamped on the lid with the words "FIELD'S OZOKERINE, REGISTERED."

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## THE CONDY'S FLUID CASE.

### FINAL DEFEAT of MR. H. BOLLMANN CONDY.

### FAILURE AND EXPOSURE OF THE "TRAP TO CATCH CHEMISTS."

CONDY v. MITCHELL.

COURT OF APPEAL, LINCOLN'S INN, Nov. 27, 1877.

LORD JUSTICE JAMES (without needing to hear defendant's counsel) said—That such a suit should have been instituted at all was very remarkable; but that, after the learned Vice-Chancellor's judgment, this appeal should have been brought on was particularly strange. Dr. Mitchell had obtained his right by payment of a substantial money consideration, and CONDY'S FLUID AND CONDY'S OZONISED WATER WERE AS MUCH HIS PROPERTY AS THE PLAINTIFF'S. Having that right, Dr. Mitchell was entitled to set up the Condry's Fluid Company.

LORD JUSTICE BAGGALLAY was of the same opinion. The style of the partnership had been "Bollmann Condry & Co.," and the plaintiff set up in his own name of "H. Bollmann Condry." It was not necessary to consider whether he might have been restrained from so doing; but he came into court with a very bad grace. To get evidence HE HAD RESORTED TO WHAT WAS, IN FACT, A TRAP TO CATCH CHEMISTS.

LORD JUSTICE THESIGER was also of that opinion; and especially as to the character of the plaintiff's evidence. A good deal of it seemed to him not admissible at all.

LORD JUSTICE JAMES: APPEAL DISMISSED WITH COSTS.



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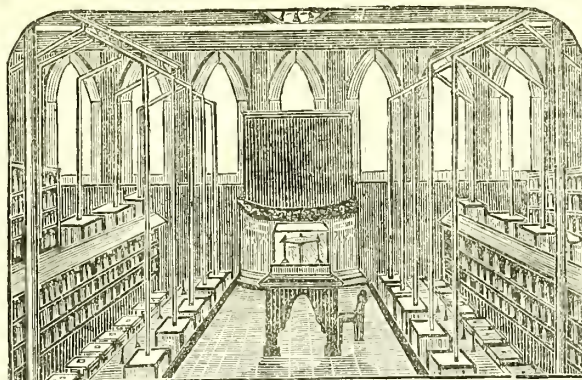
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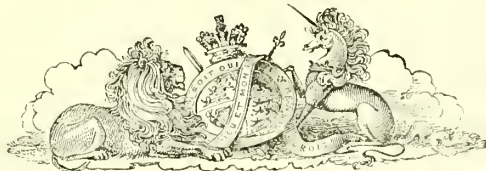
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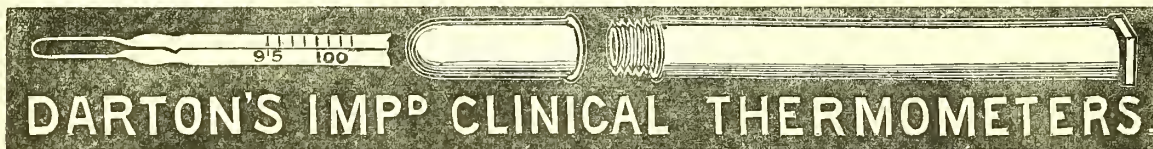
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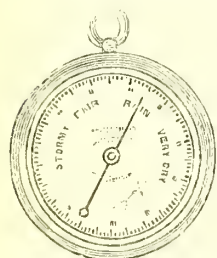
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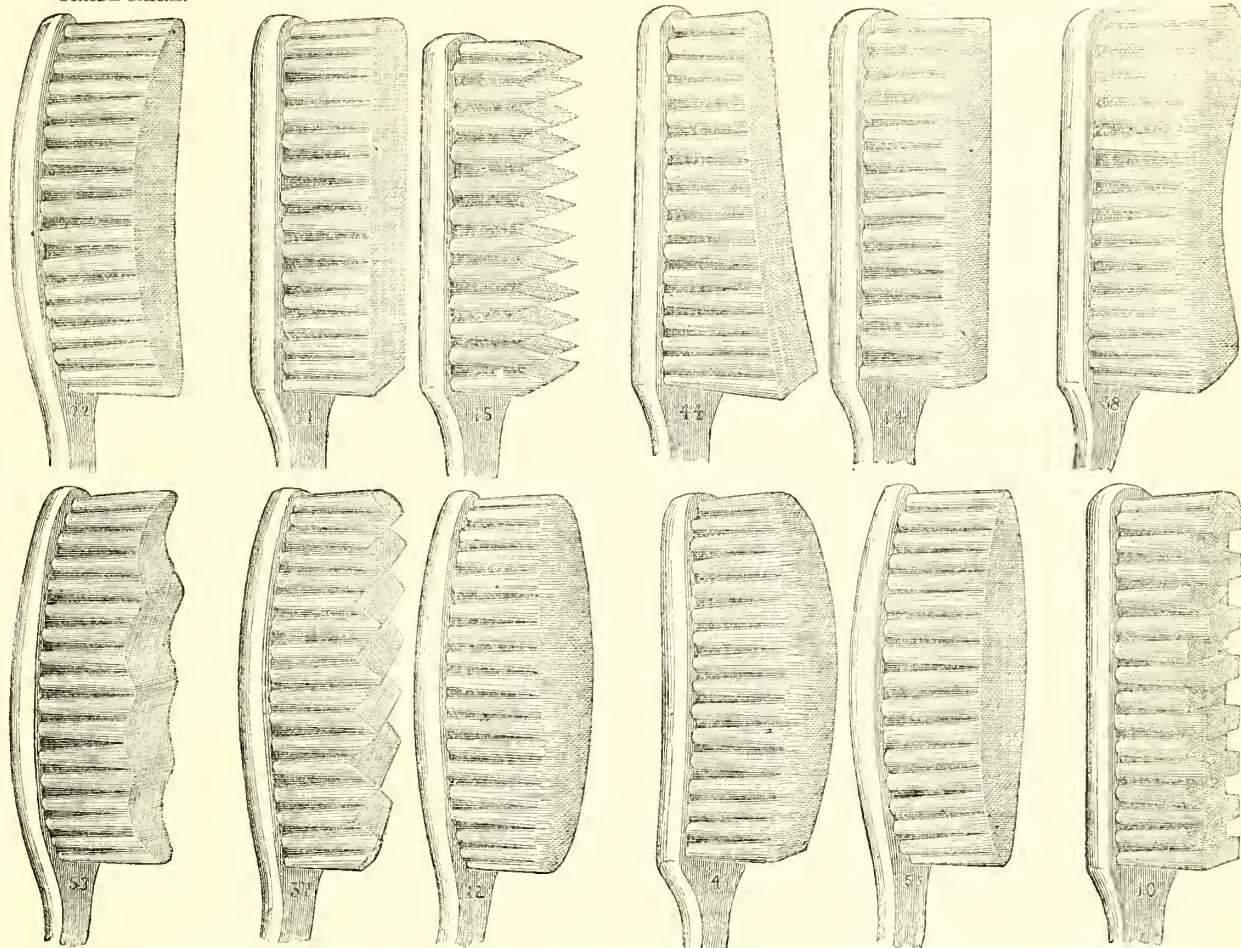


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**A ASSISTANT or MANAGER**, in town or country; registered. **W.**, 6 Princes Square, Kennington Park, London, S.E.

**A ASSISTANT**; temporary or permanent; aged 28; good class. **F. B. Thobalds**, Hertford, Herts.

**LOCUM TENENS**, Assistant, or Working Partner; Minor qualification; I could Manage a branch; excellent references. **B. M.**, Edwards, Chemist, Brighton.

**MANAGER**, Associate, and Dentist; married; town and country experience; satisfactory references. **N.**, *Advertiser* Office, Stony Stratford.

**JUNIOR**.—2½ years' experience; aged 18; height, 5 feet 8 inches; first-class reference. Address, **S. E.**, care of Messrs. **Hearson & Co.**, 5 Colman Street, E.C.

**A ASSISTANT**, or similar position; aged 46; good reference and experience; town or country; for a time or permanency. **S. T.**, Office of **THE CHEMIST AND DRUGGIST**, 44A Cannon Street, E.C.

**A ASSISTANT**; accustomed to Dispensing, Shipping, and Mixed businesses; aged 25; extracts teeth. **J. B.**, 21 North Luton Place, Monmouth, Cardiff.

**WANTED**, an Engagement as Outdoor Assistant or Manager of a Branch in a Mixed Business; married; aged 30. **C. Campbell**, Collyhurst Post Office, Manchester.

**A FOREIGN GENTLEMAN** (aged 24) requires an Engagement, either Wholesale or Retail; well up in English Retail; salary moderate; first-class references. **T. L.**, 116 Murray Street, N.

**WHOLESALE**.—Traveller, with good and safe connection in North and Midlands, is open to Re-engagement with Drug or Druggist Sundry House. "Traveller," **Mr. H. C. Thompson**, stationer, Magdalen Street, Norwich.

**WANTED**, Situation as Assistant Chemist, Chemist and Dentist, or Dentist, in or out door; aged 30; height, 5 feet 10 inches. Address, "Molar," care of **W. Fletcher**, Penley, Ellesmere.

**A PHARMACEUTICAL CHEMIST** can recommend for a permanency, as outdoor Assistant, or to Manage a branch; a steady, honest, and pushing young man, married. "Pharmaceutical," Messrs. **Raines & Co.**, York.

**WHOLESALE DRUGGISTS**.—A Gentleman, who has represented two well-known Drug Houses, is open to Re-engagement as Traveller; first-class references; good salesman. "Rhei," care of Messrs. **Smith & Sons**, Wholesale Druggists, Norwich.

**WANTED**, the Management of a Business by an experienced and registered Chemist; a Situation as Permanent or Temporary; a thorough knowledge of the Veterinary business; country town preferred. Apply, "Northumberland," Office of **THE CHEMIST AND DRUGGIST**, 44A Cannon Street.

## MISCELLANEOUS.

**A GOOD CHEMIST**, seeking an Opening for Commencing a Homoeopathic Business, on easy terms, is requested to communicate with **M.**, care of **E. Gould & Son**, 59 Moorgate Street, E.C.

**TO CHEMISTS AND DRUGGISTS**.—The Stock and Fittings of a Retail Chemist's Shop to be Disposed of at once, on very reasonable terms. Apply to Messrs. **Liney**, Marlborough.

**HITCHIN, HERTS**.—To be let, at Midsummer next, a capital plate glass fronted shop (15 feet by 18), good premises and house attached, in Sun Street, Hitchin; at present occupied by **Mr. Kershaw**, chemist, who is giving up business, from whom may be obtained all particulars; stock and fixtures at valuation.

**A SODA-WATER MACHINE** to make 1,000 doz. per day, with gas works, corking rack, dial, and water gauges, 2½ horse-power horizontal steam engine, with 3 horse-power vertical boiler, with all mountings; second-hand, as good as new. Particulars of **N. G. Wileocks**, Bath.

**TO LINT, &c., MANUFACTURERS**.—To be Disposed of, the Plant, Utensils, and Stock-in-Trade of an excellent and well-established Business, situate No. 22 John Street, Netherfield Road North, Liverpool. The premises are well adapted for doing a large and lucrative trade, having 27 looms, worked by steam power. Rent £100 per annum. Apply to **Roose & Price**, Accountants, 26 North John Street, Liverpool.

## SOUTH LONDON SCHOOL OF PHARMACY.

### NOTICE.

The Silver Medal of the Institution will be completed for immediately after the Pharmaceutical Society's examinations in July. Students eligible to compete are the holders of Bronze Medals presented to them in December and April last, whose names will be received up to July 2; while the successful Bronze Medallists at the school examination in July can send in their names one day after presentation. **W. BAXTER**, Secretary.

## SOUTH LONDON SCHOOL OF PHARMACY.

The whole of the Benches in the Laboratory are full up to the end of the Session. Students desirous of entering the School on September 15 should send in their application with as little delay as possible, as more than half the places are already taken. Fee.—Minor Course, 10 guineas. For further particulars apply (with stamp) to **W. BAXTER**, Secretary, Central Public Laboratory, Kennington Cross, S.E.

## BEST SEIDLITZ POWDERS.

**JAMES C. CHUBB**

Supplies the above, loose, at 1/- per gross; and in boxes at 8/-, 9/-, and 10/- per doz., through the Wholesale Houses, or from 29 OLD STREET, LONDON, E.C.; and will forward list of articles packed by him on application.

## HIGGINSON'S ENEMAS.

**BEST QUALITY**, with Elastic Vagina Pipe and Shield, and Bone Rectum Pipe, in Slide Cedar Boxes, per doz. 28s.

Sample to any City Drug House for enclosure 34 stamps, or quarter dozen P.O.O. for 7s.

**JOHN CENTRETON,**  
204 CITY ROAD, LONDON, E.C.



**JOSEPH GILLOTT'S**  
**STEEL PENS.**

Sold by all Dealers throughout the World.

## PRIVATE SCHOOL OF PHARMACY.

**Mr. JAS. W. SAUNDERS, A.P.S., G.S.T., &c.,**  
PRIVATE TUTOR.

FOR the success which attended my Students at the last examinations, vide Advert. Pharm. Journ. May 17th, 1879. Terms moderate. Enclose stamp for references and Prospectus.

**79 GALSFORD STREET, N.W.**



# "GOLDEN STAR" BAY LEAF WATER.

Trade Mark.  Registered.

The Only True and Genuine. Unrivalled in Richness and Delicacy.

*Put up in an Attractive Form, and commands a Ready Sale.*

The above quality has never before been offered in the English market. Its immense sale has heretofore been confined to America and West Indies. It is offered with the positive assurance that it is unequalled, and a successful rival with all other fine Toilet Waters.

SUPPLIED BY ALL WHOLESALE DEALERS.

Distillers' Agency: 114 and 116 Southampton Row, LONDON, England.

## "PERFECTION"



## MRS. S. A. ALLEN'S World's Hair Restorer

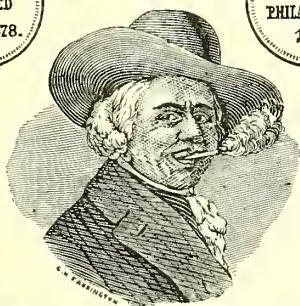
Never fails to restore Grey Hair to its youthful colour, imparting to it new life, growth, and lustrous beauty. Its action is certain and thorough, quickly banishing greyness. It is not a Dye. It ever proves itself the natural strengthener of the Hair. Its Superiority and Excellence are established.

The GENUINE only in PINK WRAPPERS Sold by all Chemists & Perfumers

Principal Depot: 114 & 116 Southampton Row, LONDON, England.



## SMOKE



## Richmond Gem

## CIGARETTES

## SMOKING TOBACCOS.

since the first introduction of our goods in Great Britain, and our experience of their business transactions hitherto gives us perfect confidence that their appointment will be attended with the most satisfactory results, both to you and us, in the future. Thanking you for your liberal patronage in the past, and respectfully soliciting its continuance, we remain, your obedient servants,

J. F. ALLEN & CO'S TOBACCOS and CIGARETTES (the Name and Trade Mark upon every Package) are sold by all first-class Establishments throughout the UNITED KINGDOM, INDIA, and the COLONIES.

Messrs. TREACHER & CO., Limited, Agents for Bombay, Byculla, and Poona; Messrs. WATSON & SUMMERS, Agents for Calcutta; Messrs. OAKES & CO., Agents for Madras; Messrs. DREYFUS & CO., Port Elizabeth; Mr. THEODOR DREYFUS, King William's Town, Wholesale Agents for the Cape Colony.

Sole Consignees: H. K. TERRY & CO., Great Russell Street, London.

EXPORT PRICE LIST FORWARDED TO THE TRADE UPON REQUEST.

## CIGARETTE SMOKERS

—may we say of both sexes—should ask for "Allen's." "It is no figure of speech to say" that the daintily-made rolls contain less paper than tobacco, and that the latter is pure and unadulterated American. Whether the smoker indulges in "The Richmond Gem," with or without mouth-pieces—the latter for choice—"The Pet" Cigarettes, or "Napoleon's" genuine Perique, his experience will be entirely satisfactory. The Tobacco is of the most exquisite quality. In fine, both as regards flavour and construction, Messrs. J. F. Allen & Co.'s Cigarettes thoroughly deserve recommendation. All Tobaccoists supply them.—*Vide The Illustrated Sporting and Dramatic News*, June 15, 1878.

## TO PIPE SMOKERS.

A CORRESPONDENT writes:—"The 'RICHMOND GEM MIXTURE' is delicious and remarkably well compounded; this Mixture should only be smoked indoors, it is far too good to be wasted 'on the desert air.'"

"The 'RICHMOND GEM CURLY CUT' is also excellent, and it is difficult to choose between this and the above, but I think the turn is just in favour of the 'Mixture'; this is also almost too delicate a flavour for out-of-door use to enjoy it as one ought.

"The 'IMPERIAL BIRD'S EYE' is a pleasant, clean-smoking, fragrant Tobacco, capital for Yachting, Fishing, Shooting, or in fact any other out-of-door use.

"I observe one thing with all these Tobaccos, they do not cake, or go hard in the pipe, however tightly filled, and they burn to the very last grain; nor do they clog the pipe as other Tobaccos do, requiring frequent scraping; the absence of Nitre, besides saving the burning of the tongue and parching the throat, so usual with other Tobaccos, affords the luxury of a dry pipe to the last, there is no 'wobbling' to be heard a yard off."

## TO EXPORTERS OF TOBACCO.

Richmond, Virginia, July 1, 1878.  
"We beg to inform you that we have appointed Messrs. HENRY K. TERRY & Co. Sole Agents for Great Britain for the sale of our Tobaccos and Cigarettes. We have also given them the entire charge of our London Export and Shipping Trade, and take leave to refer you to them for quotations. Messrs. H. K. TERRY & Co. have been acting as our Agents since the first introduction of our goods in Great Britain, and our experience of their business transactions hitherto gives us perfect confidence that their appointment will be attended with the most satisfactory results, both to you and us, in the future. Thanking you for your liberal patronage in the past, and respectfully soliciting its continuance, we remain, your obedient servants,"  
"J. F. ALLEN & CO."

J. F. ALLEN & CO'S TOBACCOS and CIGARETTES (the Name and Trade Mark upon every Package) are sold by all first-class Establishments throughout the UNITED KINGDOM, INDIA, and the COLONIES.

Messrs. TREACHER & CO., Limited, Agents for Bombay, Byculla, and Poona; Messrs. WATSON & SUMMERS, Agents for Calcutta; Messrs. OAKES & CO., Agents for Madras; Messrs. DREYFUS & CO., Port Elizabeth; Mr. THEODOR DREYFUS, King William's Town, Wholesale Agents for the Cape Colony.

Sole Consignees: H. K. TERRY & CO., Great Russell Street, London.

EXPORT PRICE LIST FORWARDED TO THE TRADE UPON REQUEST.

# EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

## JOHANN MARIA FARINA,

*Opposite the Julichs Place, COLOGNE.*

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867.

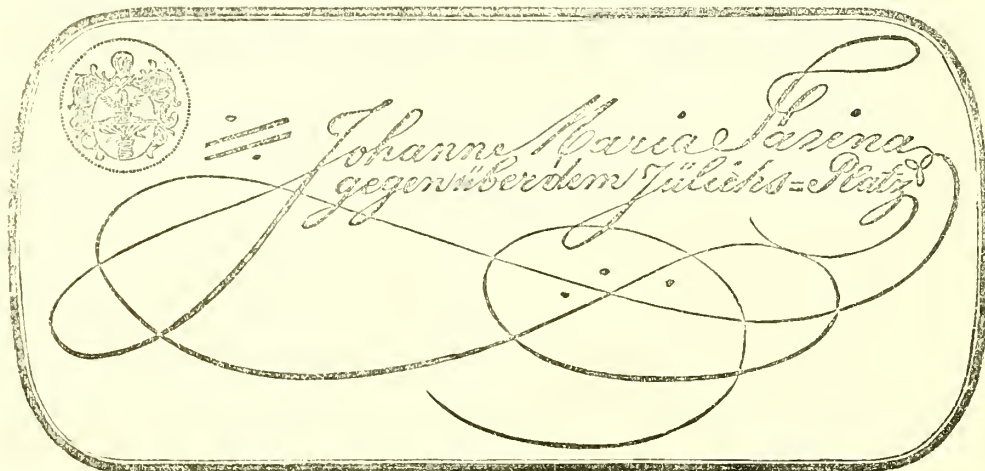
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

**MESSRS. J. & R. McCracken,**  
No. 38 Queen Street, Cannon Street, London, E.C.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	...	...	...	...	12 bottles	} to one dozen.
" 2. Short White Bottles	} as per figure plate	...	...	...	12 "	
" 3. Double ditto		...	...	...	6 "	
" 4. Wickered Bottles (small)		...	...	...	8 "	
" 5. ditto (medium)		...	...	...	4 "	
" 6. ditto (large)	...	...	...	...	2 "	

**JOHANN MARIA FARINA,**  
Opposite the Jülich's Place.

COLOGNE: January, 1879.



# SPONGES.

## IN ORIGINAL PACKAGES.

Cases Free. Quotations subject to usual Terms.

No.	Description.					Price per Case.	Number of Pieces per Case.
						£ s. d.	
1	Honeycomb,	Selected quality	...	...	assorted sizes	10 18 0	70
2	"	Fine	"	...	"	8 12 0	65
3	"	Good	"	...	"	6 18 0	65
4	"	Second	"	...	"	4 18 0	65
5	"	Third	"	...	"	3 12 0	70
6	"	Rough, for Stable use	...	...	"	2 10 0	100
7	"	Choice quality	...	...	large bath sizes	6 14 0	18
8	"	Fine	"	...	"	4 15 0	18
9	"	Good	"	...	"	2 17 0	18
10	"	Common	"	...	"	1 18 0	18
11	"	First	"	...	small	3 10 0	200
12	"	Second	"	...	"	1 16 0	200
13	Turkey, Cups,	First	"	...	bath sizes	14 15 0	40
14	"	Second	"	...	"	11 10 0	40
15	"	First	"	assorted	Toilet sizes	17 18 0	70
16	"	Good	"	"	"	14 15 0	70
17	"	Second	"	"	"	10 18 0	70
18	"	Useful pieces	"	...	"	7 7 0	70
19	"	First quality, small	...	...	Nursery sizes	9 18 0	190
20	"	Second	"	...	"	7 15 0	180
21	"	Solid, First	"	assorted	Toilet sizes	10 17 0	150
22	"	Good	"	"	"	5 6 0	100
23	"	First	"	small	Nursery sizes	7 17 0	200
24	"	Second	"	"	"	3 18 0	170
25	"	Brown, Fine	"	...	assorted sizes	3 17 0	175

## SELECTED SPONGES.

Honeycomb,...	...	...	...	...	per lb.	6/0, 8/0, 10/0, 12/0 and 0	£ s. d.
"	Small	...	...	...	per lb.	4/0 and 0	15 0 0
Turkey, Cup,	for the Bath, from 3 to 6 to the lb.	...	...	...	per lb.	30/0, 38/0 and 2	5 0 0
"	for the Toilet, from 8 to 18 to the lb.	...	...	...	"	30/0, 35/0 and 2	0 0 0
"	"	fine, from 8 to 18 to the lb.	...	...	"	45/0, 50/0 and 3	0 0 0
"	for the Nursery, from 25 to 40 to the lb.	...	...	...	"	20/0, 25/0 and 1	10 0 0
"	Eye	...	...	...	"	12/0, 16/0 and 1	0 0 0
"	Solid, for the Nursery, from 25 to 40 to the lb.	...	...	...	"	12/0, 16/0 and 1	0 0 0
"	for the Toilet, from 6 to 18 to the lb.	...	...	...	per lb.	12/0, 16/0, 20/0 and 1	5 0 0
"	Rough, suitable for Slates, &c.	...	...	...	per lb.	4/0, 6/0 and 0	8 0 0
"	Carriage	...	...	...	per lb.	8/0, 12/0, 16/0 and 1	0 0 0
"	"	brown	...	...	per lb.	4/0, 6/0 and 0	8 0 0

**S. MAW, SON & THOMPSON,**  
7 to 12 ALDERSGATE STREET, LONDON.

# SPRING AND SUMMER GOODS. CRAWSHAW'S CRYSTAL DYES.

- |   |   |
|---|---|
| 6d. Boxes Crawshaw's Crystal Dyes } 48/-<br>In $\frac{1}{2}$ gross (7 doz.) Counter Case with Glass Lid. } per gross. | 2d. Packets Crawshaw's Useful Dyes } 14/-<br>Mounted on Cards of $\frac{1}{2}$ gross. } per gross.  |
| 6d. Boxes Crawshaw's Crystal Dyes } 48/-<br>In Boxes of 1 doz. (14). } per gross.                                     | 1d. Packets Crawshaw's Useful Dyes } 7/-<br>In 3 gross Counter Case with Glass Lid. } per gross.  |
| 3d. Packets Crawshaw's Useful Dyes } 21/-<br>In $\frac{1}{2}$ gross Cardboard Boxes. } per gross.                     | 1d. Packets Crawshaw's Useful Dyes } 7/-<br>In $\frac{1}{2}$ gross Cardboard Boxes. } per gross.  |
| 3d. Packets Crawshaw's Useful Dyes } 21/-<br>Mounted on Cards of $\frac{1}{2}$ gross. } per gross.                    | 1d. Packets Crawshaw's Useful Dyes } 7/-<br>Mounted on $\frac{1}{2}$ gross Cards. } per gross.  |
| 2d. Packets Crawshaw's Useful Dyes } 14/-<br>In $\frac{1}{2}$ gross Cardboard Boxes. } per gross.                     | The Excelsior Penny Dyes. } 5/8<br>Mounted on Cards of $\frac{1}{2}$ gross each. These Dyes are good } per gross.<br>value for the money; suitable for low-class Wholesale<br>Trade, and where Cheap Goods are required. There is no<br>Maker's Name on the Packets or Cards. |

# CRAWSHAW'S INSECT POWDER

For Destroying Beetles, Crickets, Moths, Green Fly, Fleas, Bugs, Lice, Cockroaches, &c.

- |   |   |
|---|---|
| 6d. Tins Crawshaw's Insect Powder } 48/-<br>In 3 doz. Wood Boxes. } per gross.                      | 1d. Boxes Crawshaw's Insect Powder } 7/-<br>In 1 gross Wood Boxes. } per gross.                   |
| 3d. Boxes Crawshaw's Insect Powder } 21/-<br>In $\frac{1}{2}$ gross Wood Boxes. } per gross.        | 1d. Boxes Crawshaw's Insect Powder } 7/-<br>Mounted on Cards of $\frac{1}{2}$ gross. } per gross. |
| 3d. Boxes Crawshaw's Beetle Powder } ...<br>In $\frac{1}{2}$ gross Wood Boxes. } 21/-<br>per gross. |   |

MAY BE HAD FROM ALL THE WHOLESALE HOUSES.

**E. CRAWSHAW & CO., 80 FANN ST., ALDERSGATE ST., LONDON, E.C.**

## LUXURIANT HAIR.

**PETROLINE**

(REGISTERED)

**HAIR CREAM**

THE MOST POWERFUL OF HAIR PRODUCERS.

It causes the Hair to grow on Bald Spots, by nourishing and vitalising the capillaries, and is the *only* preparation which specially acts on the Roots of the Hair. It preserves and prevents the Hair from falling off, and removes dandruff; allays all irritating sensations, and imparts a richness, lustre, and softness unapproached by any other preparation. As a Hair Dresser, Preserver, and *Producer* it is unequalled. Retail price, 3s. 6d. per Bottle (cased). To the Trade, 27s. per dozen, less 10 per cent. Handsome Show Cards and Bills with each order.

**DR. DELORME'S**

**AMA ROSA**

(REGISTERED)

**TOOTH PASTE**

IN COLLAPSIBLE TUBES AND GLASS TOP BOXES.

The quantity contained in these Tubes is greater than a Pot of corresponding price. Retail, 6d. and 1s. each. Special quotation, 3s. 3d. and 6s. per dozen net. Cards and Bills with every package.

Sole Proprietors—**NERWICH & CO.,**  
WYNNE ROAD, BRIXTON, LONDON, S.W.

THE BEST GOT UP AND MOST SALEABLE

## SHILLING MARKING INK

IN THE TRADE.

It keeps its Colour and will not injure the most delicate fabric.

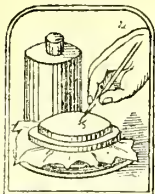


- No. 1.—PETERS' ARGENTUM, contains usual size Bottle of Ink, Pen, and New Square Stretcher.—Price 1s.  
No. 2.—PETERS' ARGENTUM, contains Larger Bottle of Ink and Pen.—Price 1s.  
No. 3.—PETERS' ARGENTUM, contains Bottle of Ink, equal to 12 of No. 1, or 8 of No. 2.—Price 5s. per case.

SOLE PROPRIETOR AND MANUFACTURER—

**R. W. WATSON, Chemist,**  
22 ANGEL STREET,  
**SHEFFIELD.**



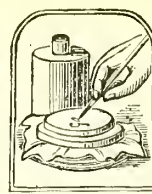


# GREAT REDUCTION OF PRICES.

6d. and 1s. PEDESTALS, Glass Cases included.

20 per cent. off £100 Orders.

10 " " " £50 "



**CAUTION**

I AM DETERMINED TO PREVENT IN ALL CASES EVERY COLOURABLE IMITATION TO PROTECT MY RIGHTS & PROPERTY

WRIT OF INJUNCTION GRANTED NOV. 28, 1877.

COMMON PLEAS DIVISION,  
JAN. 15.

(Sittings before Lord Coleridge and  
Justices Grove and Denman.)

HICKISSON v. ASHTON.

Defendant moved for a NEW  
TRIAL.

Application REFUSED.

This action, which was brought for the alleged infringement of the Plaintiff's Trade Mark, was tried at the last sittings at Guildhall, before Mr. Baron Cleasby, when the verdict was for the Plaintiff with damages.

The PLAINTIFF was the HUSBAND of the DAUGHTER of the late JOHN BOND, the PROPRIETOR of BOND'S CRYSTAL PALACE MARKING INK. The Defendant was a Druggist, and he had sold a Marking Ink manufactured by a Mr. Murphy, and the Plaintiff complained that the Labels on Murphy's Ink were an infringement on his Labels. A TRADE MARK is not only a SYMBOL or CHARACTER, but the general appearance of a label, whereby the public would be deceived.

Their Lordships this morning, after consulting Mr. Baron Cleasby on the matter, refused the rule, that learned judge having expressed his satisfaction with the verdict. RULE REFUSED. *Five daily papers.*

## ANOTHER GOLD MEDAL AWARDED,

PARIS ACADEMIE,

For Merit and Superiority of Finish, 2nd Award.

PRIZE MEDAL, PARIS, 1878, 2ND AWARD.

3 Gold and several Silver and Bronze Medals.  
Hon. Mention, Paris, 1878.

PRIZE MEDAL AND GRAND DIPLOMA,  
8 Medals.] PHILADELPHIA EXHIBITION, 1876. [7 Diplomas.

PURVEYOR TO THE LORDS COMMISSIONERS OF THE ADMIRALTY.

CAUTION.—The only GOLD Medal Marking Ink. Gold and Silver Medals and Diploma, Silver Medal and Diploma, London. Prize Medal, Lyons, Certificate of Merit, signed Albert Edward, Prince of Wales; and Dublin Diploma, Marking Ink Maker under Royal Warrant to Her Majesty the Queen and Court of Holland.

GOLD MEDAL, SOUTH AFRICA, 1877.

HONOURABLE MENTION and ESPECIAL NOTICE from the FRENCH PRESIDENT and H.R.H. the PRINCE OF WALES, Paris Exhibition, 1878.

HONOURABLE MENTION and DIPLOMA awarded by the JURORS, 1878.

SECOND GOLD MEDAL awarded by the PARIS ACADEMY, 1878, for Merit and Superiority of Production.

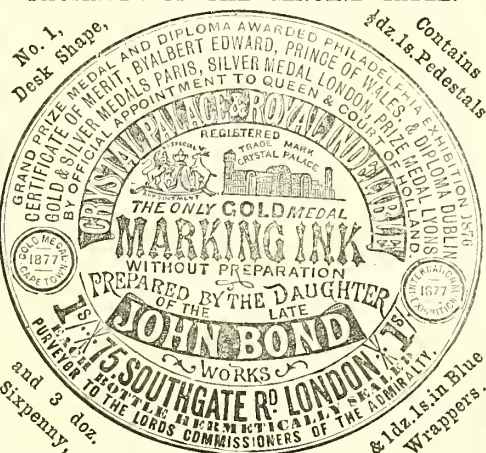
J. HICKISSON, Proprietor of the Daughter of the late John Bond's Crystal Palace Marking Ink, 75 Southgate Road, London.

BOND'S MARKING INK.

CAUTION to Wholesale and Retail Vendors.—TAKE NOTICE that on Nov. 26th, 1877, IN AN ACTION "HICKISSON & ANOTHER against MURPHY" JUDGMENT was given for PLAINTIFFS, WITH DAMAGES AND COSTS, AND A PERPETUAL INJUNCTION GRANTED RESTRAINING the said MRS. MURPHY and her AGENTS FROM USING the word "BOND" upon any labels or pedestals manufactured by or for her, OR FROM IN ANY WAY REPRESENTING THE INK MANUFACTURED BY HER TO BE BOND'S MARKING INK.

- 6d. Bottles in Round Blue Cases (Grand Show Card enclosed with each Packet of one dozen) ... 30s.  
1s. Do. do. do. (Handsome Show Card enclosed with each dozen) ... 60s.  
6d. Round Blue Wrapper upon Show Card of one dozen ... 30s.

### FACSIMILE OF THE GENUINE LABEL.



Blue Wrappers. Black and White Oval Label.

DEAR HICKISSON,—  
Send on receipt the £200 order, as we are much increasing our trade by pushing your Ink in place of useless Novelties, as some other Wholesale Houses are sending other Makers', and thereby the Retail are closing their accounts. The 50 No. 1 Glass Cases are sold. Repeat order immediate.—Yours,  
BROWN & CO.

29/4/78.

No Heating Required if allowed to remain three hours previous to Washing.

Where are the Thousand that have expended and One would-be Makers entirely lost large sums in trying to oppose this old-established preparation? Chemists, return all others forced upon you, and do not offend a Customer by sending a would-be substitute.

Have you seen the New Black and Gold Glass Cases with Hinged Black and Gold Framed Linen Specimen of the Crystal Palace with elaborate GOLD Mounts?

No. 2 CASE, containing 3 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, Black and White Oval Label, old style. 16s. each.

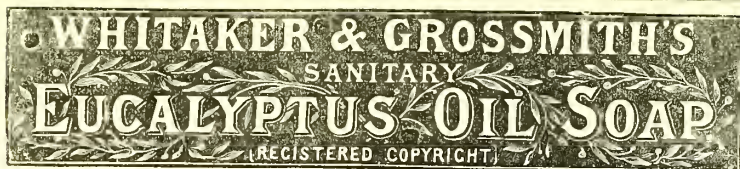
No. 3 CASE, containing 1 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, old style, and 2 doz. 6d., do. do. 11s. each.

No. 4 CASE, containing 3 doz. 6d., Crystal Palace and Royal Indelible, Blue Wrappers, Black and White Oval Label, old style. 8s. 6d. each.

**CAUTION** I WILL PROSECUTE IN EVERY CASE OF MISREPRESENTATION OR COLOURABLE IMITATION



Highly recommended by the *Lancet*, *Sanitary Record*, and the *Medical Press* as an elegant Antiseptic Toilet Soap for the skin, with an aromatic disinfectant for the Apartment.



The Antiseptic properties of the *Eucalyptus Tree* are now fully retained by enclosing the Soap in tinfoil, and any of the old stock on hand will be exchanged for fresh, free of cost.

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TOILET SOAPS. Per doz.			BOUQUETS. Per doz.			POMADES, &c. Per doz.		
<i>Cent-Fleur</i> (copyright)	2/6	Boxes of 3 tablets	20	<i>Cent-Fleur</i> (copyright)		<i>Cent-Fleur</i> (copyright)	8/12	& 20/
<i>Jockey Club</i> "	1/6	"	12	<i>Star of India</i> ...	In Glass	<i>Petroleum Pomade</i> ...	12/	& 18/
<i>Musk Windsor</i> "	1/6	"	12	<i>Pearl of Perfumes</i> ...	Stoppered	<i>Brilliantine</i> ...	8/12	& 20/
<i>Sandringham</i> "	1/6	"	12/6	<i>Stephanotis</i> ...	Sprinkling or cap Bottles.	<i>Anglo Eau de Cologne</i> ...	8/	& 12/
<i>Eucalyptus Oil</i> "	1/6	"	12	<i>White Rose</i> ...		<i>Eucalyptus Vinegar</i> ...	12/	& 20/
<i>Semi-Cut Bars</i> "	1/	Bar of 4 kinds	8/6	<i>Ylang-Ylang</i> ...		<i>White Cherry Tooth Paste</i> ...	8/	& 12/

TRADE PRICE LISTS SENT AND ORDERS EXECUTED THROUGH WHOLESALE HOUSES, OR DIRECT FROM THE MANUFACTURERS,  
**WHITAKER & GROSSMITH, Wholesale Perfumers, 120 Fore St., City, London.**

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Richly perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which GLYCERINE is so justly famed.

**NECESSARY CAUTION.**—This unrivalled Toilet Soap was originated by us in 1863, and solely by its superior merit and moderate price has now attained the patronage of a wide circle of all classes of society. As many (external) imitations of our saleable article are often falsely offered as the *real Soap*, all vendors should please note that the Box and Wrappers now bear our "Trade Mark," and not be misled by inferior counterfeits, thereby causing disappointment to purchasers, and consequent injury to the sale of the original and genuine Soap.

1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers,

**WHITAKER & GROSSMITH, Wholesale Perfumers, 120 Fore Street, City, London.**

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6d. each.



Wholesale,  
4s. per dozen.

Is a great improvement upon the "DENTAL SYRINGE," as the fluid is contained in a glass bulb, which enables its contents to be seen, also prevents the liability to evaporation through long keeping or exposure.

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It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

## "The EMPRESS of INDIA'S BOUQUET"

(Registered under the new Trade Marks Act).

A DELIGHTFUL, REFRESHING, AND FASHIONABLE PERFUME.

"Chemists may gratify their loyalty to their hearts' content by selling a perfume just introduced by Mr. B. Robinson, of Pendleton, Manchester, called 'The Empress of India's Bouquet.' The perfume is remarkably cheap, and is by no means lacking in richness. The shilling bottles are good sized ones, corked with the patent sprinklers, and decorated with a faithful likeness of the Empress alluded to."—Editor of *The Chemist and Druggist*, November 15th, 1876.

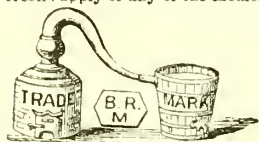
Sold in Bottles, at 1s. each, or Treble Size, 2s. 6d.; Wholesale, 8s. per dozen in 1-dozen cases, and 20s. per dozen in 1/2-dozen cases.

Prepared only by B. ROBINSON, Operative Chemist and Distiller, PENDLETON, MANCHESTER.

## CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled

Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical Impurity. They are prepared to suit a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate.

N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopoeia.



Per lb.	Per lb.	Per lb.	Per lb.
Aqua Anethi, Concent. 4/0	Aqua Cinnam. Ver. Concent. 6/0	Aqua Fœniculi, Concent. 4/0	Aqua Pimentæ, Concent. 4/0
" Anisi, 4/0	" Cassiæ, 4/0	" Mentli Pip. 4/0	" Rosæ 8/6
" Camphoræ, 4/0	" Flor. Aurant. 8/6	" Ang. Con. 6/0	" Rosæ Virgin. 10/6
" Carni, 4/0	" Flor. Sambuci, 8/6	" Viridi, 4/0	

The above are put up in Bottles of 1/2 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over cork.

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**B. ROBINSON, Operative Chemist, Distiller and Brewer of British Wines, Manchester.**



**ESTABLISHED 100 YEARS.****TOILET AND FANCY SOAPS**  
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PRICE LISTS  
 ON APPLICATION.

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 Cold Cream Soap, in boxes, 3 tbs. in box (1/6 & 2/6) } 12/ & 21/ "  
 Stockholm Tar Soap } in boxes, 3 tablets in box (1/6) ... } 12/ "  
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 Superior Lavender Soap, in boxes, 3 tablets (1/ and 1/6) ..... } 8/ & 12/ "  
 White Glycerine Soap, in boxes, 3 tablets (1/6) ..... } 12/ "  
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BY HER MAJESTY'S ROYAL LETTERS PATENT.

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BRADLEY & BOURDAS'S  
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For Cleaning Gold, Silver, and Plated Goods.

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## THE ANTI-RUST.

For Preserving from Rust, Polished Steel, Iron, or Gun Metal. In Tins 1s. each. Wholesale, 8s. doz.

## THE MARBLE RENOVATOR.

For Cleaning Marble Chimney Pieces, Wash-stands, Slabs, &c. May be had of Messrs. Barclay & Sons, Farringdon Street; Crowden & Garrod, Falcon Square, London; and of all Birmingham and Sheffield Factors.

SOLE MAKERS—  
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## Godard's Plate Powder

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GODDARD'S FURNITURE CREAM. Sold in Bottles, 6d. and 1s. each.

Sold by leading Wholesale Houses and Factors, and by the Inventor,

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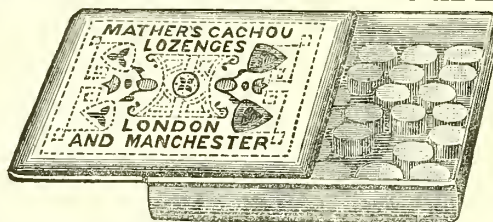
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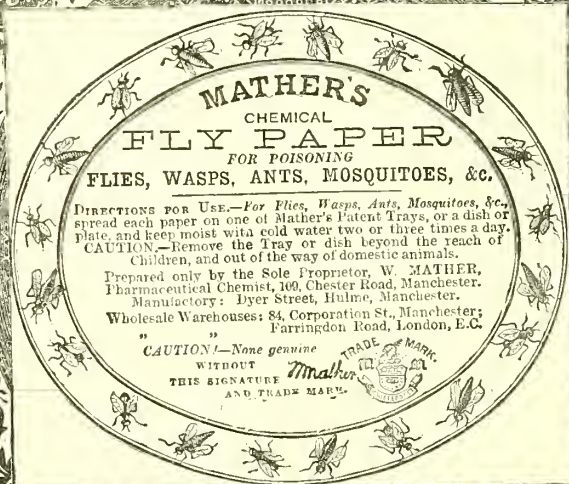
A Customer writes: "I must congratulate you on sending out the neatest and cheapest pennyworth I ever saw. Send me two gross more of your Cachous; though only opened late last night, nearly the whole of the box sent have been disposed of."

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June 14, 1879.

## SCALE OF CHARGES FOR ADVERTISEMENTS.

Whole Page, £5. Half Page, £2 15s. Third Page, £2. Quarter Page, £1 12s. Sixth Page, £1 5s. Eighth Page, 18s.

Special Rates for Wrapper and pages preceeding and following Literary matter, also pages facing inside of Wrapper. The above Scale of Charges will be subject to a discount of 10 per cent. upon 7 and 20 per cent. upon 15 insertions, prompt quarterly payments.

N.B.—An order for 13 insertions means 12 in the CHEMIST AND DRUGGIST and 1 in the CHEMISTS' AND DRUGGISTS' DIARY. The same rule also applies to an order for 7 insertions, or to an order for insertion until countermanded, if such order is in force in October of any year.

All Advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST on or before the 12th, except Employers' and Assistants' Advertisements, which can be received up to 10 A.M. on the morning previous to publication.

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WILHELMS QUELLE NATURAL MINERAL WATER		98
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ZIMMERMANN, A. & M.	Agents for the Chemische Fabrik auf Actien, Berlin—Schering's Celloidine, &c.	70
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# WHY PURCHASE COATED PILLS?

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Will Coat 1 lb. of Pills in a very short time. There is no difficulty in using it.

PRICES:—No. 1, to Coat up to 1 lb., £1 5s.; No. 3, 3 lbs., £3 3s.; No. 5, 12 lbs., £5 5s.

### INEXHAUSTIBLE SMELLING-BOTTLE.



Very saleable.  
Per doz., 7/6.

### WATCH-SHAPE SMELLING BOTTLES

*In great variety.*

Plain Cut, per doz.,  
6/ and 7/.

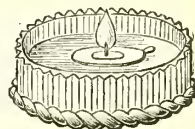
Rich Cut, per doz.,  
12/, 14/, 16/ & 20/.

Rich Cut, Silver  
Capped, per doz.,  
30/ and 48/.

N.B.—A Special Cheap  
Rich Cut Watch,  
per doz., 7/ and 8/.

### B. & T.'s FLOATING NIGHT LIGHTS

Give a better light and burn longer than any others yet introduced. Mothers will find them very useful in keeping warm the Infants' Food as long as required. They are invaluable for the sick-room, as they give no smell, and are perfectly safe and economical.



Boxes, 4/ and 8/ per doz. Glasses for burning the Oil,  
7/ per doz.

### B. & T.'s MUSICAL TEETHING PAD

Is a combination of Gum Ring, Baby's Rattle, and Teething Pad. By blowing through the two holes it forms a whistle; and by placing the finger and thumb over the holes, and pressing the ball, it makes a musical sound. Will amuse a child for hours.

One dozen on a Show Card. Per dozen, 4/.



### HIGGINSON'S ENEMAS.

Black Rubber, in Paper Case...	...	per doz.	32/	Green Rubber, with Disconnecting Mount	...	per doz.	37/
Green Rubber, in Cedar	...	"	35/	The Perfect Enema, with Screw Pipes (Disconnecting)	..	"	48/

Special Quotations for Large Orders.

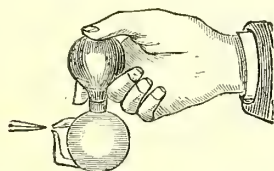


FIG. 1. Per doz., 18/.

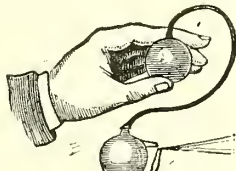


FIG. 2. Per doz., 20/.

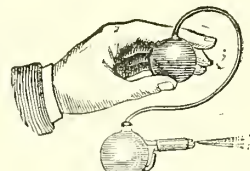


FIG. 4. Per doz., 27/.

### B. & T.'s PERFUME SPRAY PRODUCER

Is the simplest and best apparatus for perfuming apartments, and for disinfecting sick-rooms by means of Carbolic Acid, &c. It is also used for the destruction of Insects on Rose and Fruit Trees, &c. It is made in two forms:—one as Fig. 1, with an Indiarubber Ball attached to the glass vessel, and the other as Fig. 2, with Indiarubber Ball and long Tube. 2/6 each.

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Is made similar to Perfume Sprays, and can be used for the same purpose. It has a long Glass Tube for the mouth. These are highly recommended for Throat Diseases by the most eminent Physicians. 3/6 each.

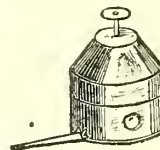
### B. & T.'s BEETLE POWDER

Kills Blackbeetles, Cockroaches, Crickets, and other offensive vermin, with the utmost despatch.  
Sold in Tin Dredgers, at 3d. each. Three doz. in a Show Box. Per doz., 2/.



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Destroys Flies, Fleas, Bugs, Moths, and all other offensive and destructive insects which vex and annoy both peer and peasant. In Bottles, at 6d. and 1/ each; also in Bottles with Perforated Tops, for convenient application, price 6d.; and in Tin Apparatus, with Piston Blower and long Tube, for crevices in walls and bedsteads, and other haunts of insects, price 1/. Price per doz., 4/ and 8/.



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Ten per Cent. Discount allowed for Cash.

"I know a Bank whereon the Wild Thyme blows."

**FRAGRANT ANTISEPTIC EMOLLIENT.**

# RICHARDSON'S PURE THYMOL SOAP.

**BEWARE OF SPURIOUS IMITATIONS.**

The discovery of this new, interesting, and powerful Crystal has added another, and, beyond doubt, the most complete disinfectant, to those we already possess.

Thymol, from Wild Thyme—**ORIGANUM VULGARE**—is an irregular crystal, nearly transparent and colourless, of a burning and aromatic taste, freely soluble in alcohol, æther, or chloroform; and so powerful is it as an antiseptic, that *one-tenth of one per cent.* of Thymol has been found to arrest saccharine and lactic fermentation, which places this substance even higher in rank than Carbolic or Salicylic Acids.

Another special advantage of this new and valuable antiseptic is that it is *non-poisonous*, and instead of the disagreeable, and to many nauseating, odour of Tar, Carbolic Acid, and other disinfectants, it has the delightful and refreshing fragrance of Wild Thyme.

The obvious convenience of such a preparation in the manufacture of a Toilet Soap, at once elegant and yet possessing in the highest degree the advantages of a powerful antiseptic, must be at once apparent; and we have much pleasure in introducing our elegant and superior soap to the favourable commendation of the medical profession.

As a skin soap it is marvellously beneficial, and well adapted for the bath or toilet and general family use.

Sold in Tablets, 6d. each, or in Boxes containing Three Large Tablets, 1s. 6d. per Box.

SOLE MANUFACTURERS:—

**JOHN RICHARDSON & CO., Manufacturing and Export Chemists,  
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Sole Wholesale Agents:—MAW, SON & THOMPSON, London.

Midland Counties Steam Laboratory. Established A.D. 1793.

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**Sarg's Double Distilled Glycerine, Chemically Pure,**

30° Beaumé, in Cases of Four 56-lb. Tins each; Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 ½-lb. Bottles, with Registered Label.

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In ½-lb. and 1-lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieving them from dandruff and the roughness of the scalp they are so commonly subject to.

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**Crude Glycerine, in Bulk.**

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**Transparent Glycerine Soap,**

In registered Packets of three Tablets, 1s. Warranted to contain 33% of the purest Glycerine. Also in round Tablets, three in a Box; and in oval Tablets in paper.

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Best preventive against chapped hands, 1s., and unrivalled for imparting softness to them, and rendering them clean and white. See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

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In Bottles at various prices. Either pure or diluted with water, this Glycerine is very successfully used for softening the skin, preserving the complexion, and preventing the very unpleasant roughness of the skin in cold weather.

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Is quite unequalled for imparting a fresh and healthy colour to the lips and keeping them from chapping.

**Sarg's new Carbolic Glycerine Soap,**

In Boxes of three Tablets, is highly recommended as a most effective disinfectant.

Sold by all Wholesale Chemists and Druggists.

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AND MELBOURNE, AUSTRALIA.**



# FERRIS & COMPY'S PURE THYMOL SOAP,

PREPARED FROM  
THYMOL, THE NEW ANTISEPTIC AND DISINFECTANT.

THYMOL, a newly-discovered Crystal prepared from Wild Thyme (*Origanum Vulgare*), is pronounced by some of the most eminent Chemists and Physicians in Europe to be far superior to, and stronger than, Carbolic Acid, Coal Tar, or any other of the Antiseptics and Disinfectants hitherto known. It has been shown by the experiments of LEWIN and BUCHOLTZ to be about eight times as powerful as Carbolic Acid.

It has also the very great advantage of being **QUITE HARMLESS**, and possesses the **DELICIOUS and FRAGRANT ODOUR of WILD THYME**.

## FERRIS & COMPY'S PURE THYMOL SOAP,

Manufactured by them with their Pure Crystals of Thymol, is confidently recommended as one of the very best and most elegant Soaps ever introduced to the Public.

It is adapted for the **TOILET** as a **SKIN SOAP**, as an **ANTISEPTIC SOAP**, and **FOR GENERAL FAMILY USE**.

An easy test of its effectiveness is, that it at once and completely removes the odour of Tobacco Smoke.

*See that each Cake bears our registered Trade Mark.*

Sold in Tablets, 6d.; or in Boxes, containing 3 large Tablets, 1s. 6d. per Box.

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## FERRIS, BOORNE, TOWNSEND & BOUCHER,

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**BRISTOL,**

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**MIXED & LEAD FOIL & FOIL PAPER. COLOURED CAPPING & FANCY PAPERS.**

*Samples and Prices post free on application.*

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The original and only genuine is manufactured solely by

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**CHEMISTS, MANCHESTER,**

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 And Importer of Perfumery & Fancy Goods,  
 5, 6, & 7 HOLBORN BARS,  
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THESE COMBS BEAR THE NEAREST RESEMBLANCE TO IVORY.

**GOLDEN HAIR.**  
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**AUREOLUS.**  
**FLUID**  
*Hair.*  
**GOLDEN HAIR.**

This preparation produces one of the most beautiful and fashionable tints that have been conveyed to the Human Hair. It converts Hair of any colour to tints varying from the richest auburn to the most brilliant golden or sunny hue. It is perfectly harmless and free from smell. In all instances it has given the greatest satisfaction; and is, as a genuine and profitable article, recommended to the Trade. Pamphlets and Handsome Show Cards.

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**AMERICAN BAY RHUM.**

*TRIPLE DISTILLED. The only true Universal & Genuine Article.*  
 Distilled from the leaves of the Bay Tree (*Myrciactris*).  
 THIS ARTICLE COMMANDS A READY SALE.

This delicate Spirit has acquired a great popularity in America and the West Indies. It is an indispensable Eau de Toilet for the Nursery and Bath, and is an effective remedy for Headache, Nervousness, and Rheumatic Pains. It also alleviates irritation of the skin after shaving or from change of temperature, and removes all impurities from the skin.

**ENGLISH LAVENDER WATER.** Much admired for its lasting fragrance.

**LIME JUICE**  
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**GLYCERINE.**

This valuable toilet preparation for the Hair is highly recommended on account of its nutritive and restorative properties.

Attractively put up in Round Shouldered White Glass Bottles.

3 ozs.	4 ozs.	6 ozs.	8 ozs.
2s. 9d.	3s. 6d.	5s. 3d.	7s. per doz.

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Best Green Glass, one dozen in a box, 29s. grs.

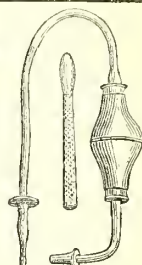
Best White 30s. "

1s. Feeding Bottle, one in a box, with brush, &c., complete, 50s. gross.

Vial Lips, Flat or Oval, 3-oz. & 4-oz., 8s.;

GASOGENES, first-class article, 3-pint, 12s. 6d.;

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HIGGINSON'S

ENEMAS.

Green, Red or Black,

In sliding Cedar

Boxes, with Gum

Elastic Vagina Pipe,

27s. per doz.,

for an order of six

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IS SUPPLIED BY

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Condry's Fluid, red ...	...	Government strength	1s. size, 4s. per doz. net.
" " " " "	" "	" "	2s. " 8s. " "
" " " " "	" "	" "	4s. " 16s. " "
Condry's Ozonised Water	" "	" "	2s. " 8s. " "
" " " " "	" "	" "	3/6 " 16s. " "

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Chemists wishing to profit by our Reduced Prices should order R. CONDY & CO.'S FLUID of their Wholesale House.

Our articles are made in strict accordance with the Patent, and are guaranteed by the original labels of our old Firm to imitate which is a misdemeanour.

The Practitioner says—"Mr. Condy seems to have allowed himself to be outstripped in economical production."

ESTABLISHED 1837.

# VIOLET POWDER

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OF ACKNOWLEDGED EXCELLENCE, HANDSOMELY PACKED IN ALL SIZES.

## SEIDLITZ POWDERS

OF GUARANTEED QUALITY AND STANDARD WEIGHT,

In 1s. Boxes, shouldered and very neatly got up, or loose in One Gross Boxes.

DIRECTIONS IN THREE LANGUAGES FOR EXPORT.

Prices and Special Quotations for Wholesale and Export only.

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SPECIAL QUOTATIONS TO LARGE BUYERS.



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**ANTISEPTIC DISINFECTANT** for Preventing Epidemics and Destroying Infectious Diseases, as supplied to the Royal Arsenal, Woolwich. This Fluid is a powerful Antiseptic, Disinfectant, and Deodoriser, and from its harmlessness may be applied in any direction without any ill effects, and with the best possible results. **THE "PRINCESS ALICE" CALAMITY.**—The Sanitary Fluid was used at the Woolwich Dockyard for Disinfecting over 600 Bodies. The Clothing taken from the Bodies and over 500 Sheets were also Disinfected in large Caudrons, also the Building, Yards, &c., giving the greatest satisfaction to the Dockyard and Parish Authorities. The work was carried out under the superintendence of Mr. HARMER.

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The **MAGIC FLUID** for General Household Purposes, price 1/6 per gallon. Write for Pamphlet, with Testimonials, &c. **NON-POISONOUS.**

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IS THE MOST RELIABLE AND THE CHEAPEST  
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Harmless to furniture and linen. **Does not stain. Odourless, but powerful!** It instantly deodorises and disinfects any material it is applied to, no matter how fetid or offensive! **Destroys and neutralises** instantly all poisonous gases, arrests decomposition, and prevents contagion. Reliable and safe in the sick chamber, the hospital, and for all sanitary purposes.

**ONLY ONE QUALITY—THE BEST!**

Price 2s. per quart bottle, sufficient to make two gallons of the best and cheapest disinfectant in the world.

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### Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by **WILLIAM DARLING**, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

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### BAYLY'S LAUNDRESSES' FRIEND (REGISTERED).

Once used will always be required. One trial will prove its value to Ladies, Housekeepers, and Landresses for the brilliant gloss and stiffness it imparts to all kinds of Linen, especially to Shirt Fronts, Collars, &c., and can be used with equal success in boiled and cold water starch. Sold by all Chemists, in 1d. and 3d. Packets, and 6d. Tins. 1d., 8s.; 3d., 21s.; 6d., 48s. gross, less 10 per cent. for cash.

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Perforated, to hold  $\frac{1}{2}$  oz., 6s.; 1 oz., 8s. 6d.; 2 oz., 11s. gross, less 5 per cent for cash.

PREPARED BY

**G. W. BAYLY,**  
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BEST ROLLED LETTERS, 18s. gross.

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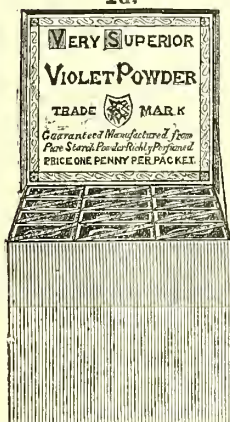


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**SNOOK & SON'S "INSECTO,"** the most effectual exterminator for all kinds of Insects, ground from the finest selected Dalmatian flowers, and guaranteed pure. 3d., 2s.; 6d., 4s. per dozen. Each box is fitted with a perforated zinc top, so that it can be used as a dredger. One dozen to any wholesale house in London for 24 or 48 stamps. Special quotations for large quantity.

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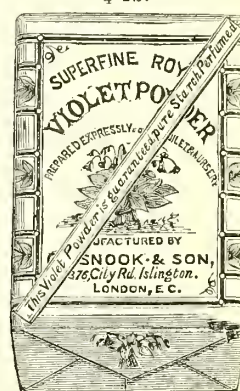
Any of the above goods may be had through all Wholesale Houses.  
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**HUNT'S PAPER BOTTLE CAPS.**

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**PLEASED BY PATENT MACHINERY.**

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In Two Bottles in One Case, 24s. dozen.

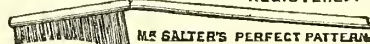
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A Sample Case of well-selected Perfumery, Pomades, &c., sent to any address on receipt of P. Order for 25s

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*One Quality only—Finest BRITISH SPIRIT.*

Not less than 2 Gallons, 56° o.p., 20/6; 60° o.p., 21/0 per Gallon.

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FOR CASH ON DELIVERY ONLY. COUNTRY ORDERS MUST CONTAIN A REMITTANCE.

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PURE GOLD COLOURED  
**SHERRY FOR MEDICATION,**  
FREE FROM ACIDITY.

£12 10s. per Quarter-Cask of 27 Gallons.

£6 5s. per Octave ... 13½ "

Brilliant and fit for immediate use. Casks to be returned or paid for.  
2½ per cent. discount for Cash.

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TINCTURES, ESSENCES, PERFUMES, &c.,  
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Beg to call the attention of CHEMISTS and DRUGGISTS to the under-mentioned Prices of Pure Spirits of Wine:—

Strength per cent.	Specific Gravity.	Price per gallon.
63 over proof ..	0·8238 ..	21/0
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50 " ..	0·8482 ..	19/6

Special quotations for large quantities.

*Terms—Cash on Delivery. Jars to be returned or paid for.*

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 galls. 3/-; 3 galls. 3/6; 4 galls. 4/-; 6 galls. 6/-. When the empties are returned the money will be repaid. Can be had free for exportation.

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## CHEMICALLY PURE SPIRITS OF WINE.

A highly-rectified English Grain Spirit, free from Fusel Oil.

63 over proof, 20s. 6d. per gallon; 56 over proof, 20s. per gallon; less 6d. per gallon for five gallons. Lower quotations for quantities. Cash on delivery or with order. Packages charged, and money repaid when empties returned, 2s. 6d. for two gallons; 5s. for five gallons. Country Orders must contain remittance or reference to London House.

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**RIMMEL'S AROMATIC OZONIZER**, a fragrant powder which, simply spread on a plate in apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, and produces a quantity of *Ozone*, the great air purifier. It is in use in the principal Hotels, Clubs, and Theatres, and also in the Saloons and Cabins of several Lines of Steamships. In 4 oz. tins, 1s.; by post for 15 stamps; 1 lb. tins, 3s. 6d.; Spreading Plate, 6d.



## RIMMEL'S OZONIZED PERFUMERY.

DR. DAY, of Geelong, who has devoted much time and attention to sanitary questions, has discovered that alcoholic perfumes form excellent vehicles for diffusing ozone in the atmosphere and destroying noxious emanations and miasma. At his suggestion, E. Rimmel has prepared a series of Toilet Waters (Eau-de-Cologne, Lavender, and Florida), which are oxygenated by a chemical process, and evolve a quantity of Ozone. They are strongly recommended to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea; also to be sprinkled on beds or carpets, or on a pad hung up in the air. Dr. Day writes to E. Rimmel (November 28, 1877):—"In manufacturing and making known the hygienic value of oxygenated perfumery you will be conferring a great benefit to the public, for it is the best means of disinfecting bedrooms, closets, &c.

PRICES:—Rimmel's Ozonized Eau-de-Cologne } 4 oz. round bottles . . . 2s. 6d.  
Rimmel's Ozonized Lavender Water } 8 do. do. . . . . 5s. 0d.  
Rimmel's Ozonized Florida Water } 16 do. do. . . . . 9s. 0d.

Sanitary Pads to be impregnated with the above and hung up in the air, 1s. The usual allowance to the Trade. Wholesale Lists on application to

**EUGENE RIMMEL, Perfumer by Appointment to H.R.H. the Princess of Wales,**  
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For Removing Tartar and Whitening the Teeth, without injuring the Enamel. Sold in Pots, at 6d. and 1s. each.

**WOODS'****QUININE, CANTHARIDINE, & ROSEMARY HAIR CREAM**

(WITH GREASE). Restores the Hair if weak or falling off.  
Price 9d., 1s. 6d. and 3s. 6d. per bottle.

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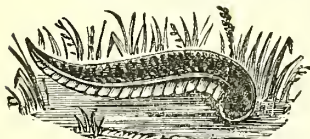
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Never fails. 1s. per pot.

Proprietor: W. WOODS, M.P.S., Chemist, Plymouth.  
SOLD WHOLESALE BY ALL LONDON HOUSES.

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FITCH & NOTTINGHAM,  
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**TRY IT!  
SPANISH**

In Bottles,

Unrivalled for RESTOR-  
ING HAIR, RENEW-  
ING, CLEANSING,  
THICKENING, and  
PREVENTING the Hair

Of Messrs. Low & Haydon, 330 Strand, London; Barclay & Sons, 95 Farringdon Street, London; of any Chemist or Hairdresser; or of A. P. Muddiman, Leighton Buzzard, Beds.

**IT NEVER FAILS!  
WASH!!**

2/6 & 5/- each.

from FALLING OFF or  
Turning Grey, instantly  
removing all Scurf or  
Dandruff, leaving the  
skin pure and healthy.

AWARDS:  
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AWARDS:  
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**IN LIQUID AND POWDER.**

Packed in 1-lb., ½-lb., ¼-lb., and 2-oz. Boxes, ½-pint 6d. Bottles, and bulk.

Specimen Boards and Circulars supplied when ordered.

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Sold by all Stationers, Fancy Dealers, &c., throughout the United Kingdom, in 6d., 1s., and 2s. 6d. Bottles; or post free for 8, 13, or 30 stamps, from the Sole Proprietors—

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Of any size, in the very best quality that can possibly be made. Large stock kept in London. Any buyers of these goods should compare my Samples and Prices before ordering elsewhere.

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For Home, Foreign, and Colonial Markets.

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P. A. STEVENS, Chemist and  
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LONDON, N., Sole Proprietor and Maker  
of the SILVERY WHITE GUTTA  
PERCHA ENAMEL for Stopping De-  
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P. A. S. is prepared to supply the above to  
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Special Terms to Shippers.  
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By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

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Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

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## THE LIFE OF FLOWERS,

FOR STIMULATING AND QUICKENING THE GROWTH OF PLANTS, AND  
PRODUCING A RAPID AND HIGH DEVELOPMENT OF BLOSSOM.

This valuable Preparation is the result of several years' exhaustive trials, and it is scarcely possible to speak too confidently of it. Plants of all descriptions, from the best known to the rarest and costliest, develop their blossom and foliage with extraordinary quickness and beauty when the Florvita is applied to them. So also with Fruits and Vegetables, which, under this treatment, reach perfection with great rapidity.

To ladies who take an interest in their flowers, both indoors and out, Florvita particularly recommends itself; for though chemically it represents a very highly concentrated fertiliser, it has not the appearance or character of what is known under the head of "Flower Manures," being a delicate pink powder soluble in water, with a most agreeable bouquet.

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"A boon which amateurs, and lady gardeners especially, will welcome. According to our experience of a small quantity, it is readily dissolved in water, can be applied to plants grown in rooms without the least objection, and well answers its purpose as a fertiliser."

*Extract from Report of DR. AUGUSTUS VOELCKER, Professor of Chemistry to the Royal Agricultural Society of England, 7th June, 1878.*

"The preparation is readily soluble in water, and perfectly free from all disagreeable smell, and it may be regarded as the concentrated essence of the most valuable manures, deprived of all the disagreeable smelling and useless products of partial decomposition which generally accompany ordinary manures."

"The facility with which it can be applied, and the small quantity required to produce a visible effect upon flowers, render it an elegant and efficacious substitute for liquid manure, guano-water, &c., for use in Greenhouses and in the Flower Garden."

"A preparation so rich in Soluble Phosphates, Salts of Ammonia, Nitrates of Potash and Soda, as your Florvita, I believe, may also be used as a highly concentrated fertiliser for vegetables and every kind of kitchen garden produce."

### From THE HORTICULTURAL RECORD.

"The results of our experiments upon plants in small pots made with this material, by contrast with equal numbers similarly treated, but with ordinary water, are truly surprising."

**DIRECTIONS FOR USE.**—One teaspoonful of the Florvita to be added to each gallon of water used. The plants should be watered with it once or twice a week.

Prepared only by **PRENTICE BROS.**, Chemical Laboratory, STOWMARKET.

*Sold in Bottles, 1/- and 2/6 each, and in Jars of 18/- and 36/- each.*

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By Special Warrant,  
Dated 27th December, 1865.

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For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

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"CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.

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"GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

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Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed. Patronised by Royalty and the leading Agriculturists of the British Empire, and awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, Spring Exhibition, 1871; President's Medal at the Spalding Show, July, 1872; Silver Medal, Manchester and Salford Show, November, 1874; Silver Medal, Preston Agricultural Show, June, 1875; Silver Medal, Northamptonshire Agricultural Society, Stamford Show, September, 1875; Silver Medal, Cheshire Agricultural Society, Crewe Show, September, 1875; Special Prize, National Agricultural Society of Victoria, Australia, Spring Exhibition, November, 1875; Medal, Cheshire Agricultural Society, Cheshire Show, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Northumberland Agricultural Society, Newcastle-on-Tyne Show, August, 1877; Silver Medal, Kentsford Show, July, 1878; Medal, North Berwick Show, July, 1878; and Medal, Dairy Show, London, October, 1878.

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LONDON DEPOT—WHITE HORSE YARD, 100 HIGH HOLBORN.

CIRCULARS FREE BY POST ON APPLICATION.

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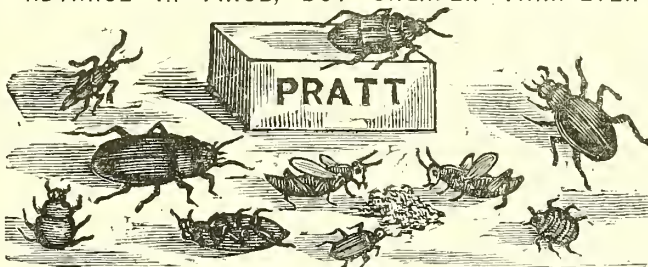
NO ADVANCE IN PRICE, BUT CHEAPER THAN EVER!!

Death to Beetles!!

Death to Cockroaches!!

Death to Crickets!!

3d., 6d., and 1s. packets.



Death to Black Clocks!!

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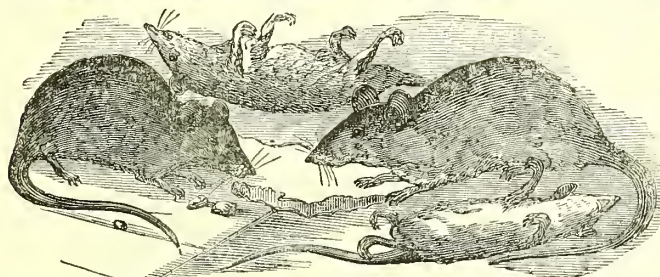
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Has been established for more than Thirty Years, and is an excellent and most satisfactory Insecticide for the destruction of household pests—such as Black Clocks, Beetles, Crickets, Fleas, &c.

Sole Proprietor—HENRY J. PRATT (late SIDDALL), Pharmaceutical Chemist, YORK.

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Mice eat it readily, and Die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

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From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy; to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th 1857.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

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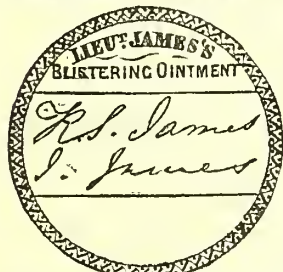
No Chemist or Storekeeper should be without a supply.

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The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

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R. S. JAMES, 31 Years Sole Manufacturer, STANFORD, FARRINGTON, BERKS.  
Advertised in "Bell's Life" 45 years. Beware of a Spurious Imitation.

100 Rats destroyed for a Shilling by

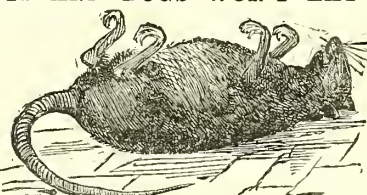
### BARBER'S PHOSPHOR PASTE.

WRAPPED NEATLY FOR THE COUNTER.

You would never sell any other if you were desirous of pleasing your Customers.

#### CATS AND DOGS WON'T EAT IT.

Kills Rats, Beetles, &c.  
THE DEAD VERMIN  
DRY UP  
WITHOUT SMELL.



Guaranteed the best  
destroying Paste in  
the world.

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

### BARBER'S VERMIN KILLER.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s.

#### Testimonial from Her Majesty's Ratcatcher.

"Hampton, Middlesex, May 25th, 1870.—I have been more than forty years employed at Hampton Court Palace, the Royal Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin, and after trying all the rat poisons which I have heard of, I now use BARBER'S PHOSPHOR PASTE and VERMIN KILLER, with which alone I am able to keep these ancient palaces and national works free from vermin. (Signed) CHARLES SHONES."

WORKS, SALISBURY: ESTABLISHED 1848.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses

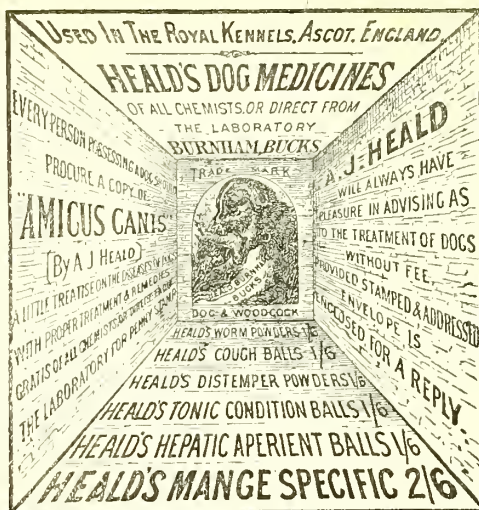


## CHEMISTS

Are invited to send to the Laboratory for a gratis supply of

### "AMICUS CANIS"

for distribution amongst their clients. A demand for the MEDICINES almost invariably follows their circulation. The Pamphlet is neatly got up, and forms a welcome gift to all who keep dogs.



The Medicines may be obtained of the Wholesale Houses, or direct from the Laboratory for Cash.

## WHOLESALE HOUSES

At home and abroad, by forwarding

### "AMICUS CANIS"

to retail Chemists for distribution, will find a profitable demand created for the MEDICINES. Any quantity will be supplied gratis, with name of firm inside cover, on application at the Laboratory.

## RHODES' CURATIVE AND CONDITION MIXTURE FOR DOGS.

Especially recommended to the Nobility, Master of Hounds, Hunting Men, and Dog Fanciers.

The best known Remedy for the effectual Cure of Distemper, Worms, Vomiting, Diseases of the Skin, will promote Appetite and Condition, giving a smooth coat and a healthy condition. Enlarged in terms of the highest approbation by all who have tried it as a cure and prevention (which is better than cure).

"Caractacus," in the *Sportsman's Journal*, April 12, 1879, in his article on the Rearing of Young Dogs, &c., says, in speaking of the various remedies for the different Diseases of Dogs, "In all fairness we must not omit Mr. Rhodes' Mixture, which I have tried on many occasions and never knew it to fail."

Sold in Bottles, at 1s., 2s. 6d., and 4s. 6d.; for the use of large kennels in Tins at 25s., containing twelve 2s. 6d. bottles; and 4s. Tins, containing twenty-four 2s. 6d. bottles—A GREAT SAVING. The Tins forwarded CARRIAGE PAID to all parts of the United Kingdom upon receipt of the amount.

May be obtained from the principal Wholesale Houses, or the Proprietor and Inventor,

JOSEPH RHODES, Chemist, East-thorpe, Mirfield.

## LOZENGES!! LOZENGES!! LOZENGES!! IN PATENT METAL SLIDE BOXES. SOLD ONE PENNY EACH.

PATENT BOXES at Patentees' Prices Empty if required.

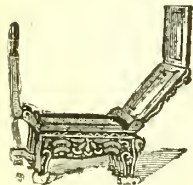
CACHOU LOZENGES supplied in Bottles or Bags at Manufacturers' lowest Prices, either large pale pink or small bright pink.

Silvered CACHOU AROMATISE in Glass Bottles or Brass Boxes.

SEND FOR LOWEST PRICES AT ONCE.

W. ALEXANDER & CO.,  
6 KENTON ROAD, SOUTH HACKNEY,  
LONDON.

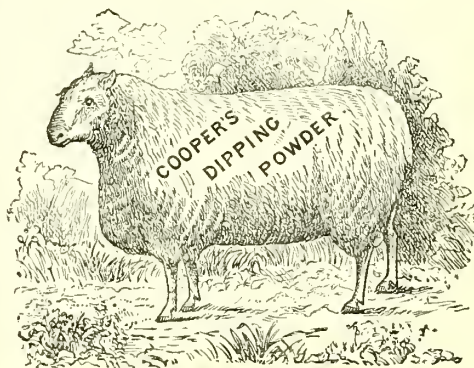
INTERNATIONAL EXHIBITION, 1870.  
283, CLASS 3.



Every Man his own Printer  
PRINTING PRESSES (all Iron) 25s.  
complete, to £10 10s.  
Specimens of Work, One Stamp.  
Inventor

JABEZ FRANCIS, Rochford, Essex.  
Type and Materials for Amateurs.  
Amateur's Guide, 64 pp., 13 stamps.

See page 17.



## COOPER'S SHEEP DIPPING POWDER

Is soluble in Cold Water, and should be used in preference to any other Dip,

FOR TICKS, FLY, SCAB, AND FOR ALL OTHER SHEEP DIPPING PURPOSES.

This Dip has been in use upwards of 35 years, and has never been equalled by any other; it is of uniform strength, does not stain the wool, and is equally good as a Summer or Winter Dip. It is especially recommended for Dipping Lambs, and as a certain Cure for Scab.

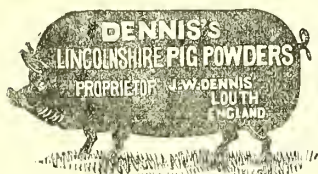
In Packets to Retail at 1s. 4d. each, for 20 Sheep.

Counter Bills and Directions in English, Spanish, Dutch, &c., may be had free on application.

Terms and all particulars may be had of the Proprietor,  
WILLIAM COOPER, M.R.C.V.S., Chemical Works,  
Berkhamsted, Herts.



# DENNIS'S CELEBRATED LINCOLNSHIRE PIG POWDERS



TRADE MARK. NO. 14389.

Hovenden & Son, W. Mather, Newbery & Son, and W. Edwards & Son, London; Lofthouse & Co., Hull  
 Raimes & Co., York; or from the Proprietor,

**JOHN W. DENNIS, CHEMIST, LOUTH, LINCOLNSHIRE, ENGLAND.**

THESE Powders have now been before the Public for Ten Years. The large and increasing sale, together with the numerous testimonials constantly being received, prove that the public are fully alive to the fact that they are the **BEST MEDICINE FOR DISEASES** to which **PIGS** are subject and are also the best **CONDIMENT** known. They have an immense sale wherever introduced, and the Proprietor is desirous to assist all who will undertake to keep them in stock by supplying them with Show Cards, Posters, and Counter Bills with name and address thereon. They are put up in Penny Powders, each Powder a full dose; but are almost invariably sold in Packets containing Six and Twelve Powders to Retail at Fivepence and Tenpence. Retailers will be charged 40/- per Gross for Fivepenny, and 80/- per Gross for Tenpenny Packets, less usual discount, by

TRADE



**THE OLD CONDY'S FLUID CO., Gloucester St., BIRMINGHAM.**

**From C. FOOT & CO., Battersea.**

## COMPOSITION.

Genuine Condyl's Fluid is not and never was Permanganate of Potash as stated by our completely outstripped competitors whose untradesmanlike manoeuvre of using Mr. H. Bollmann Condyl's Medals on labels to counterfeits has so disgusted and annoyed the Trade. Of course it is palpable our opponents do not know how to make *genuine* Condyl's Fluid, nor indeed any of the *cheap* Permanganates which by their advertisements they appear to buy so very cheap and sell so very dear to the Trade.

**T. HARVEY, Manager,**  
 30 years working for Mr. Condyl.

**COMPARE OUR PRICES. FOR NET CASH WITH ORDER.**

N.B.—OUR C. F. PASSES WITHOUT COMMENT WHEN H. BOLLMANN CONDYL'S IS NOT WANTED.

**CONDY'S Crimson Fluid ... 4s. per dozen, selling at 12s. to the Public.**

**CONDY'S Effervescent Pickup, 12s. " " 24s. "**

Concentrated Vinegar (for Shipping), Albumen, Chloral Hydrate, Toilet Fluid, Water Test, Cattle Fluid, &c., as usual.

CARRIAGE PAID WHEN PICKUP ORDERED WITH FLUID.

YOU SAVE HALF OF THE USUAL COST OF CARRIAGE

## 1/6 JUDSON'S 1/6 GOLD PAINT.

1 Bottle Gold Powder	} 12s. per dozen sets. Six sets on a card, or each set in card box.
1 " Mixing Liquid	
1 Mixing Bowl	
1 Brush	
1 Bottle Gold Paint	} 10s. 6d. per doz. sets. Six sets on a card, or each set in card box.
1 " Mixing Liquid	

For regilding picture and glass frames.  
 For gilding lamp stands and gas-fittings.  
 For renewing ormolu ornaments.  
 For illuminating on paper, silk, or leather.  
 For artistic cabinet work.  
 And for a thousand useful and domestic purposes.

## W. E. BUTT & CO.,

UNION CHEMICAL WORKS,

DEBNAM'S RD., SOUTH BERMONDSEY, S.E.

MANUFACTURERS OF

**PHARMACEUTIC, PHOTOGRAPHIC, and PURE  
 CHEMICALS for Analysis.**

## SPECIAL PREPARATIONS:—

HYDROGEN PEROXIDE  
 ZODOFORM

FRUIT ESSENCES  
 FERRUGINOUS SYRUPS

SCALE PREPARATIONS, &c.

ESTABLISHED A.D. 1815
GENUINE INDELIBLE MARKING INK

TO HER MAJESTY'S ARMY CLOTHING DEPARTMENT.

THE LEADING &  
**STANDARD ARTICLE**

PREPARED ONLY BY THE WIDOW OF THE LATE  
**JOHN MURPHY**  
 CHEMIST AT THE ORIGINAL ESTABLISHMENT  
 11, NILE STREET, EAST ROAD, HOXTON, N.

**NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.**



BEST WORK ONLY.]

[BEST WORK ONLY.

# FILMER KIDSTON,

## MEDICAL SHOP FITTER & SHOW CASE MAKER,

### AND MANUFACTURER OF EVERY DESCRIPTION OF DRUGGISTS' FURNITURE.

#### NOTICE.

Chemists commencing Business, Fitting-up Shops, or making alterations to their premises, should first inspect KIDSTON's modern and unique style of manufacture, so much approved of by the Profession for its elegant appearance and superior finish.

Plans and Estimates supplied. Gentlemen are invited to inspect KIDSTON'S

## PRIZE DISPENSING COUNTER,

Which can be seen at the Show Rooms,

DUKE STREET, BRUSHFIELD STREET, BISHOPSGATE, LONDON.

ILLUSTRATED LISTS OF SHOW CASES ON APPLICATION.



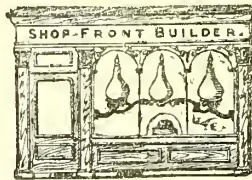
## SHOP-FITTINGS.

ESTABLISHED 1830.

### SAMUEL HOWLETT,

4 LINDLEY STREET (formerly called North St.), SYDNEY STREET, MILE END, LONDON, E.

A few Minutes' Ride by Omnibus from the Bank.



## MEDICAL AND GENERAL SHOP FITTER.

SHOPS FITTED BY S. H., and to whom references are kindly permitted:—

Messrs. Corbyn, Stacey & Co., 7 Poultry, London.

Mr. H. Deane, Clapham, London.

„ John Broad, Hornsey Rise, London.

„ N. Nicholson, Canonbury, London.

&c.

&c.

&c.

Messrs. Leath & Ross, St. Paul's Churchyard, London.

Harvey & Reynolds, Leeds.

Mr. W. F. Smith, 280 Walworth Road, S.E.

Mr. Thomas Hall, Lowestoft.

&c.

&c.

&c.

Cabinet Fitter to the Pharmaceutical Society of Great Britain. Manufacturer of every description of Air-tight Glass Show cases for Chemists, Jewellers, &c. Medical Labelling, &c.

Plans and Estimates for Entire Fittings and Alterations supplied.

# R. TOMLINSON,

## DRUGGISTS' SHOP-FITTER, SHOW-CASE MAKER,

### AND

## MANUFACTURER OF DRUGGISTS' SUNDRIES,

### 15 St. PAUL'S SQUARE, BIRMINGHAM.

VALUATIONS EFFECTED.

BUSINESS TRANSFER AGENT.

Second-hand Fixtures for Sale, Jars, Globes, Drawers, Bottles, Counter Glass Cases, Shelves, &c.

SECOND-HAND FIXTURES OF ALL KINDS BOUGHT AND EXCHANGED.

R. T. will wait upon parties fitting up, to plan and advise. 2nd-class fare only charged.

FOR SALE, FIXTURES FOR SHOP, ABOUT SIXTEEN FEET BY TWELVE.

WRITE FOR LIST.

ESTABLISHED 1851.

# CHEMISTS' SHOP FITTERS,

## SHOW CASE MAKERS & SHOP FRONT BUILDERS.

# JOHN CURTIS & SON,

## NORTH OF ENGLAND STEAM SHOP FITTING WORKS,

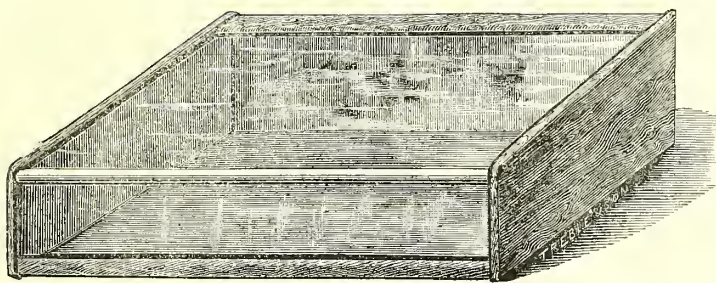
### WADE STREET AND WADE LANE, LEEDS.

Designs and Estimates furnished.

EXPERIENCED FITTERS SENT TO ALL PARTS. DESIGN SHEETS FORWARDED ON APPLICATION



# TREBLE & SON'S SPECIALITIES.



## THE WELL-KNOWN "LONDON" SHOW CASE.

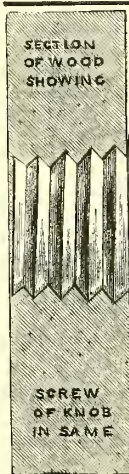
SIMPLE, ELEGANT, AND USEFUL.

*Made of Solid Mahogany and French Polished; Polished Plate Glass Top and Front  $\frac{1}{4}$  inch thick.*

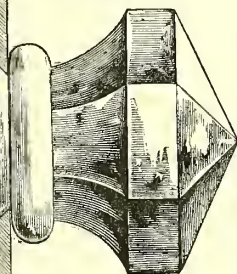
This Show Case cannot be equalled at the price.

Among the many advantages combined in this useful and inexpensive SHOW CASE, we may mention that it is so made that two or any number may be placed together, to occupy full length of counter if required. It is made 24 in. long, 18 in. wide, 8 in. high at back, and 7 in. in front. A bright burnished Silverdine Bar has been introduced in front, which has an excellent effect; does not change colour; is always bright, and merely requires dusting. The back of Case is hinged to open, and secured by a brass spring catch. The bottom of Case is covered with blue leatherette.

**Special Price, 18/6 for Cash.**



**FULL  
SIZE.**

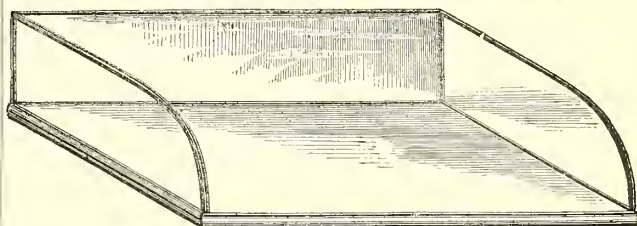


**REGISTERED  
CRYSTAL  
CUT GLASS  
DRAWER KNOB  
PRICE 4/6 doz.**

Borers for Making Holes,  
and Tool for making the  
Screw in drawer front,  
1s. each.

A Sample Knob will be sent by Post  
on receipt of Six Stamps.

## TREBLE'S HALF-GUINEA SHOW CASE.



**10/6 Cash.**

Packed in Deal Box for enclosure Free of Charge.

This neat and elegant little Show Case is 14 inches long, 10 inches back to front, 3 inches deep inside, with clear bent glass top, glass ends, silvered glass mirror back, the bottom lined with blue velvet, and edged with ebony.

# GEO. TREBLE & SON,

MANUFACTURERS OF

## CHYMIST'S SHOP FITTINGS

OF ELEGANT DESIGN

AND SUPERIOR CONSTRUCTION,

**GLOUCESTER STREET,**

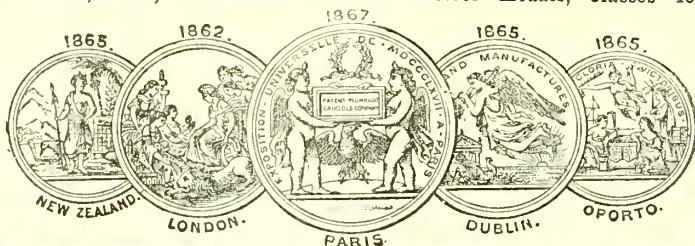
**HOXTON,**

**LONDON, N.**



Moscow Exhibition, 1872, Gold Medal, **SOLE** award.

Amsterdam Exhibition, 1869, Highest Award.

Havre Exhibition, 1868, **ONLY** First-class Medal (Silver) Awarded.Paris Exhibition, 1867, the **ONLY** First-class Silver Medals, Classes 40 and 51.

# THE PATENT PLUMBAGO CRUCIBLE CO.

(Sole Manufacturers of MORGAN'S PATENT CRUCIBLES),

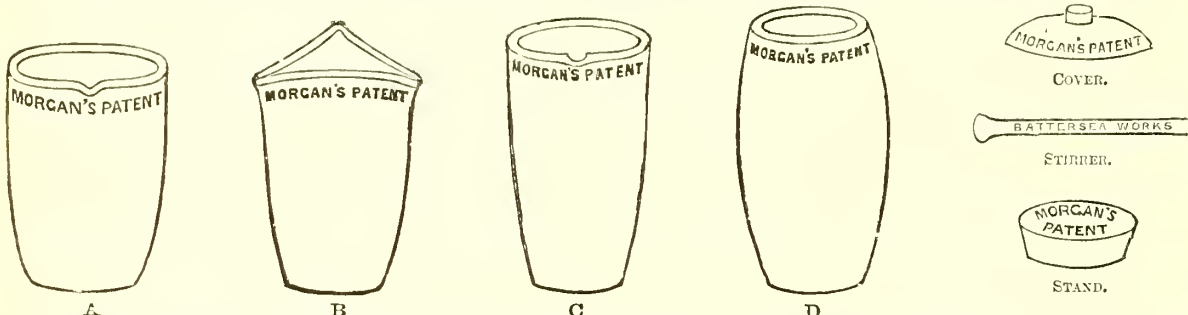
## BATTERSEA WORKS, LONDON, S.W.

THESE Crucibles (MORGAN'S PATENT) were the only ones to which Prize Medals were awarded in London, 1862; Dublin, 1865; New Zealand, 1865; and Oporto, 1865. They have been in use for many years in the various Government departments of England, France, Germany, &c., and have been adopted by most of the large Founders, Engineers, Railway Companies, and Refiners at Home and Abroad. The capabilities which have now for so many years distinguished

### MORGAN'S PATENT CRUCIBLES

are the following:—Their quality is uniform. They withstand the greatest heat without danger. Their average durability for Gold, Silver, Copper, and other ordinary metals, is 40 to 50 pourings; in some cases over 100 have been obtained. They never crack and heat more rapidly than any other kind. One annealing only required. Change of temperature has no effect. They can, when hot from the furnace, be dipped in cold water with safety. The saving of labour and metal is very great. In *Steel Melting* the Saving of Fuel has been demonstrated to amount to a ton and a half to every ton of Steel fused. For *Zinc* they last longer than iron pots, and save the great loss which arises from mixture with iron. Those for *Malleable Cast Iron* show an average working of several days, doing each day nearly double the work of any other Crucible.

As these Crucibles last longer than others, it follows that the Saving of Metal must be great, because to each worn Crucible a quantity of metal adheres. In fact, comparing Morgan's Patent with other Crucibles, the *Saving of Metal, Time, and Fuel*, alone is more than equivalent to their Cost.



- A.—Made in sizes varying from 2 ozs. to any required capacity, and are marked by the quantity of kilogrammes they will contain—thus: No. 5 will contain 10 lbs. of copper; No. 100, 200 lbs.; No. 200, 400 lbs.; No. 300, 600 lbs.; No. 400, 800 lbs.; No. 500, 1,000 lbs.  
 B.—Differ in shape, but correspond in all other respects with A, and are similarly marked.  
 C.—Made in sizes varying from 20 lbs. up to 300 lbs. capacity, are marked in English pounds—thus: a Crucible marked 60 will contain: 60 lbs.  
 D.—Made expressly for melting Steel, in various sizes.

**COVERS**—Are found of service in many descriptions of melting, the metal being kept free from outside impurities and oxidation.

**STIRRERS**—Are used by melters of precious metals for stirring and amalgamating.

**STANDS**—Placed under the Crucibles, hasten the operation of melting, and obtain even bearing above bars.

### MORGAN'S PATENT CRUCIBLES

CAN BE MADE

OR SHAPE

ARE THUS



TO ANY SIZE

REQUIRED.

STAMPED.

REGISTERED TRADE MARK.

**CAUTION.**—CARE should be exercised that users obtain Morgan's Patent Crucibles.

SOLE MANUFACTURERS:

THE PATENT PLUMBAGO CRUCIBLE COMPANY, BATTERSEA WORKS, LONDON, S.W.



# THE GREATEST SUCCESS EVER ACHIEVED IN GREAT BRITAIN.

A LITTLE more than a year ago an American gentleman came to London for the purpose of introducing a New Patent Medicine.

Without an acquaintance, and without a friend (save a little gold, if that may be called a friend) he made a start, and to-day the sales of his Medicines are more extensive than any other Patent Medicine in the Market.

*The following will show with what avidity the article is taken:—*

**CHAS. BROMLEY**, Chemist, Liverpool, has sold at retail, within 4 months, £102 worth.

**CHAS. BRITTEN**, Chemist, Birmingham, has sold at retail, within 3 months, £79 worth.

**R. L. PICKUP**, Chemist, Manchester, has sold at retail, within 3 months, £90 worth.

**LEVI TODD**, Chemist, Preston, has sold, within 4 months, £300 worth.

Messrs. ISMAY & SONS, of Newcastle-on-Tyne, sold £400 worth the first 2 months they were Agents.

*The following Letters will show how the Article takes with Retail Chemists that have circulated the Bills:—*

Mr. CALEB WEEKS, Chemist, of 83 Lower Union Street, Torquay, writes:—"The almanacks (1,000) have been carefully distributed. I have sold of the Curative Syrup nearly five hundred bottles during the last ten weeks."

J. PHILP, Chemist, Wadebridge, writes:—"I have sold several dozen of the Syrup."

J. A. S. DUNLOP, Chemist, Lockerbie, writes:—"As to the result of the distribution, I am selling a lot of your Syrup and Pills, and it will pay you well."

W. DIXON, Cottingham, near Hull, writes:—"I have had the 1,000 almanacks distributed, one being sent to every house here, and to the surrounding neighbourhood, and I must say I have sold more of the Syrup and Pills in this short time than any Patent Medicine I have ever had before. I make no charge for distributing, as I consider this is to our mutual advantage."

**WHEREVER THE BOOKS  
ADVERTISING THE MEDICINE ARE CIRCULATED  
THE SALE IS ENORMOUS.**

I will supply Memorandum and Diary Books free of charge to all Chemists (at home or abroad) who will engage in the sale of the Medicines, and who will promise to have them circulated faithfully, which, when done, will create a sale of the Medicine that will outstrip any other article in the market. The article is called **Mother Seigel's Curative Syrup and Seigel's Operative Pills for the Cure of Dyspepsia.**

**AGENTS WANTED IN ENGLAND OR THE  
COLONIES WHERE WE HAVE NONE.**

Address, **A. J. WHITE**, Proprietor,  
21 FARRINGDON ROAD, LONDON, E.C.

ESTABLISHED 1843.

# M. A. CRAVEN,

## Wholesale & Export Confectioner,

AND MANUFACTURER OF

MEDICATED LOZENGES, REFINED LIQUORICE, JUJUBES, &c.  
PAVEMENT, CONEY ST., & COPPERGATE, YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients) and stamped with name if required.

PRICE LIST ON APPLICATION.

### THE LEAMINGTON

TRADE  
"APNEUMATIC"  
MARK

MINERAL WATERS

GINGER ALE (Aromatic).—There is now a large consumption in private families of this very popular beverage, its Aromatic properties and Brilliancy of Colour are perfection; part of a bottle may be used, and the remainder if re-corked will keep in perfect condition.

Apneumatic Soda Water.  
Apneumatic Brighton Seltzer.  
Apneumatic Potass Water.

Apneumatic Lithia Water.  
Apneumatic Aerated Water.  
Lemonade.

Dr. A. H. HASSALL, in his recent Analysis, says:—"I have repeatedly Analysed the Aërated Waters manufactured by Messrs. Kinmond & Co., and have always been able to report thereon in terms of the highest praise."

*Our terms are more favourable for a family trade than those of any first-class makers.*

KINMOND & CO., late J. DAILY & CO., LEAMINGTON.  
Trade List and Descriptive Pamphlet of the Apneumatic process free on application.

# KILNER BROTHERS,

## GLASS BOTTLE MANUFACTURERS,

THORNHILL LEES, NEAR DEWSBURY, AND CONISBORO', NEAR ROTHERHAM,  
**YORKSHIRE.**

LONDON OFFICES AND WAREHOUSES:

No. 3 GT. NORTHERN GOODS STATION, KING'S CROSS, N.

PRIZE MEDALS: LONDON, 1862; PARIS, 1875 &amp; 1878; PHILADELPHIA, 1876.

We supply Mineral Water Bottles for most of the Patent Stoppers now in use, and are sending them out fitted complete.

**BOTTLES! BOTTLES! BOTTLES!**

THE ST. CLEMENT'S GLASS CO. (LIMITED),  
MEDICAL BOTTLE MANUFACTURERS,  
Will send their List of Prices on application.

Shippers, Wholesale Houses, and Bottlers of Proprietary Articles should apply  
at once if they are in search of a first-class article at a low price.

Manufactory and Chief Offices—

**CLEMENTHORPE, YORK.**



# JAHNCKE'S WAX-VESTAS

OF THE FINEST QUALITY,  
IN NEW PATENT METAL BOXES,  
UNIVERSALLY PATENTED.

---

The Greatest Invention in Box-Making of the Age.  
Perfectly Round Corners in Square Boxes.

---

**RETAILING AT ONE PENNY.**

*Orders through Wholesale Houses.*

---

**ERNST JAHNCKE,**  
Patentee,

*33 ST. PAUL'S ROAD, CANONBURY, N.*



# W. H. BAILEY & SON, 16 OXFORD STREET, LONDON, MANUFACTURERS.



FIG. 1.

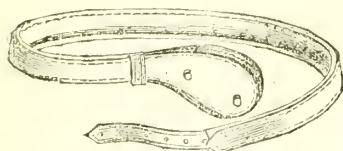


FIG. 4.

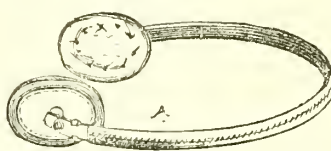
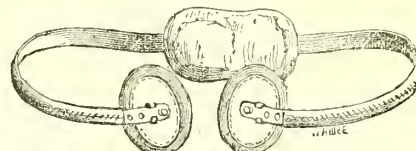


FIG. 5.



## TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamois or basil and moleskin	per doz.	£1 1 0
Circular Trusses, double, basil and chamois or basil and moleskin	per doz.	1 14 0
" " with extending backs	"	2 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	"	1 10 0
" " double, Fig. 5	"	3 0 0
Moe-Main Lever, single	each	0 8 0
" " double	"	0 13 6
Coles's Expired Patent, single	"	0 5 6
" " double	"	0 10 6
Scrotal Trusses, basil and chamois or moleskin, single	"	0 4 0
" " double	"	0 7 0

## SUPERIOR TRUSSES.

Circular Trusses, narrow springs, covered in basil and lined with red skiver, single	per doz.	1 7 0
Ditto ditto ditto double	"	2 2 0
Circular Trusses, covered in red roan and chamois, single	"	1 16 0
" " double	"	2 8 0
" " narrow springs, covered in morocco and kid, best quality, beautifully finished, single	each	0 5 0
Ditto ditto double	"	0 7 6
Salmon & Ody's Expired Patent, covered in roan, best polished springs, stitched with silk, single	each	0 4 0

Salmon & Ody's Expired Patent, covered in roan, best polished springs, stitched with silk, double	each	£0 8 0
Moe-Main Lever Trusses, covered in calf or morocco, single	"	0 12 6
" " double	"	0 17 0
Scrotal Trusses, covered in morocco or calf and doe, single	"	0 10 0
" " double	"	0 15 0

## UMBILICAL TRUSSES.

UMBILICAL TRUSSES, plain, in basil	each	0 7 6
" " in red roan	"	0 10 6
" " on Salmon & Ody's principle, in basil	"	0 9 6
" " in cream roan	"	0 12 6
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ONE FLUID OUNCE OF THIS EXTRACT CONTAINS MORE OF THE VALUABLE PROPERTIES OF MALT THAN A QUART OF THE BEST ALE OR STOUT.

FROM ZIEMSEN'S "CYCLOPEDIA OF MEDICINE."

"During the last few years Malt Extract has almost entirely taken the place of Cod-Liver Oil in the treatment of Consumption and other wasting diseases at the Basle Hospital, and we have as yet found no reason for returning to the use of the latter remedy."

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It is generally admitted by the Medical Profession that PURE NORWEGIAN COD-LIVER OIL is a most valuable nutritive and alterative remedy in Consumption and other wasting diseases, but its disagreeable flavour and after-taste render it objectionable to many persons, and when taken alone, it is so rich that it is frequently found to derange the digestion; but by combining it with the "KEPLER" MALT EXTRACT, we obtain a highly Concentrated and Nutritious Food, possessing all the valuable properties of both substances; *the excess of fatty matter is reduced to a proportion which can be easily digested*, and the Compound is exceedingly palatable and leaves no after-taste.

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The marked benefit following the use of this preparation in *pulmonary and wasting diseases, emaciation, cough, hæmorrhage, debility, and all cases of defective nutrition*, will be naturally anticipated by the Physician.

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Put up in 12-oz. and 24-oz. Bottles, and dispensed at 2s. 9d. and 4s. 6d.

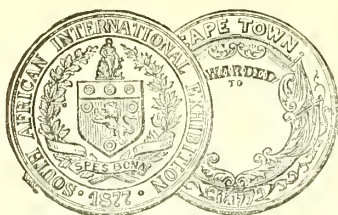
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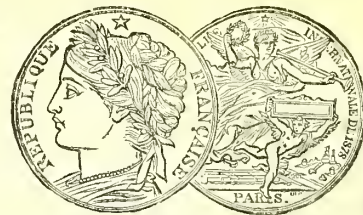




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The Sale has been considerably larger than that of any former Year.

The Price for the New Oil is the same as that charged last year, viz:—

9s. per Gallon in Winchester Quarts; 8s. 9d. per Gallon by the 25-Gallon Cask.

We supply samples and Circulars Free of Charge to the Trade for Medical Distribution, also Retail Circulars with name and Address of Customers.

**SOUTHALL BROS. & BARCLAY, Manufacturing Chemists, Birmingham.**

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Blotting-paper may be applied at the moment of writing.

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**BEWLEY & DRAPER, Limited, DUBLIN.**

See "CHEMIST AND DRUGGIST," December 15th, 1874.

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**PANCREATIC EMULSION, or MEDICINAL FOOD, in Consumption and Wasting,** will always take precedence of Cod Liver Oil by reason of its introducing the Stable Solid Fats into the system instead of the evanescent fluid fats or oils.

No Oily Emulsions of any kind, not even Cod Liver Oil itself, can supply the kind of fat necessary for sound and vigorous human life. In addition to this, all the Oily Emulsions are liable to rancidity, and most of them are highly objectionable in consequence of the Saponification, and ultimate Putrefaction, produced by the Chemical agents used instead of Pancreatic Juice, so that

**PANCREATIC EMULSION, or MEDICINAL FOOD,** is the most reliable form of nutriment for counteracting all tendencies to Phthisis and other wasting Diseases. It presents to the Lacteals fat in essentially the same condition for assimilation and absorption as in the vigorous human frame, and the agent of the important change is the natural secretion of the Pancreas.

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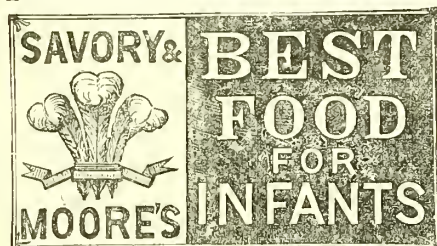
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**PANCREATISED (Digestive) COD LIVER OIL.** By combining the Pancreatic Juice with the Oil, the digestion of the latter is easily and rapidly effected, nausea is prevented, and the beneficial properties of the Oil are increased.

**PANCREATINE (Powder or Granules)** represents the active principle of the Pancreatic Juice, by which fats and oils are digested and assimilated. In Bottles, Wholesale and Retail.

**PANCREATINE WINE.**

**PEPSINE PORCI. PEPSINE WINE.** In Bulk or in Small Bottles.



USED IN THE ROYAL NURSERIES,

AND POSSESSING EVERY REQUIREMENT NECESSARY IN A DIET FOR CHILDREN BROUGHT UP WHOLLY OR PARTIALLY BY HAND.

Containing the highest amount of nourishment in the most digestible and convenient form.

THE MOST PERFECT SUBSTITUTE FOR HEALTHY MOTHER'S MILK.

N.B.—This Food has only the sugar natural to healthy milk, and is therefore free from the baneful sweetness of highly sugared Foods.

**SAVORY & MOORE, 143 New Bond Street, LONDON, W.**

AND ALL CHEMISTS THROUGHOUT THE WORLD.





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*Published on the 15th of each Month.*

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Post free to every country in the world. Single Copies, 1s. each.

Post Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

An index to the advertisements, and the terms for insertion, will be found on page 53.

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The annual meetings of the Pharmaceutical Society and of the Trade Association were held last month. At the Pharmaceutical meeting a vote was taken on the question of the admission of ladies to membership. Their claims were advocated by Mr. Wade and opposed by Mr. Vizer. The votes in favour of their admission were 78, against 81.

Mr. Thomas Barclay, of Birmingham, was elected president, and Mr. Hampson, of London, vice-president, of the Trade Association.

Mr. G. W. Sandford has been elected president of the Pharmaceutical Society in place of Mr. John Williams, and Mr. G. F. Schacht has succeeded Mr. Savage as vice-president.

The new members of the Pharmaceutical Council are Messrs. Richardson (Leicester), Squire (London), and Symes (Liverpool). These replace Messrs. Betty & Hanbury, who did not compete, and Mr. Cracknell, defeated.

The London and Provincial Supply Association have paid to the solicitor of the Pharmaceutical Society the taxed

costs and the 5% penalty inflicted on them for contravention of the Pharmacy Act, which means, we presume, that they have abandoned their threatened renewal of the action.

The Irish Pharmaceutical Council have resolved to apply for a new Act to amend their existing one in certain particulars.

We give some particulars of a crisis which has occurred in the business position of the Pharmacie Centrale of France, one of the most important wholesale drug businesses in Europe. A new start has been made, the capital having been nominally reduced by 25 per cent. in order to bring it more in accord with the actual value of the assets.

An important trade-mark victory has been gained by Messrs. A. Rowland & Sons in Paris, several French perfumers having been convicted of selling fraudulent imitations of their macassar oil.

Our medical contributor continues to write on Diseases of Children (page 237). "Pyrogenous Products" is the title of an interesting paper on page 239. Pharmacy in Spain is described on page 242. A number of Temperance Beverages and the analysis of various Washing Powders are referred to on page 243.

The eighth annual dinner of the Pharmaceutical Society was held on May 20, when Professor Tyndall, Mr. Erasmus Wilson, and Professor Williamson were among the speakers. The conversazione on the next evening was attended by about 2,700 persons. The members of the Irish Pharmaceutical Society dined together on June 4.

A large number of poisoning cases are reported this month. Amongst others are reported the suicides of the traveller for a London firm of druggists' sundriesmen at Southport, and a chemist and his wife at Lambeth.

A curious story, illustrative of animal memory, is sent to us from Tenbury. An elephant in a menagerie was relieved by a chemist from illness some five years ago. The menagerie revisited Tenbury last month, and seeing her doctor in the street as she passed by, the elephant affectionately greeted him, with an evident recollection of the previous acquaintance.

The committee of the Medical Society appointed to investigate the dangers of arsenical wall papers have issued to a large number of medical men a series of questions on the subject.

The Liebig's Extract of Meat Company have been able to withdraw from their reserve funds sufficient capital to enable them to present to every shareholder one bonus share for every three he now holds.

Petroleum has sold during the month down to 6½d., but is now a little firmer. The low price is in consequence of the enormous exportations, nearly 100,000,000 gallons having been shipped from New York up to the end of May, or 25,000,000 gallons more than in the first five months of 1878.

We wish to direct the attention of advertising firms to the arrangements we have made for the insertion of price-lists or circulars in our next number (July 15). A circular printed on tinted paper and stitched up with a journal like THE CHEMIST AND DRUGGIST, with a circulation to a special class of readers, is, we claim, by far the most effective method of advertising which can be adopted by those ready to do business with that class of readers. We circulate such circulars at not more than one-fourth the price at which they could be posted by the firms who send them, and in addition we guarantee the selection of at least 10,000 good names.

## Pharmaceuticalia.

### LADY MEMBERS OF THE PHARMACEUTICAL SOCIETY.

WHEN lovely woman stoops to folly, it is clear that in future she must not add to her unwisdom in seeking for the membership of the Pharmaceutical Society. Henceforth she must rest content with her business and her gains, her only care being to increase her store, and keep her solitary self at home. We imagine that if at the first, when two or three names appeared as claimants, they had been allowed, though females, to be admitted as a thing of course, excitement about the matter would have dropped, and neither Mr. Wade nor Mr. Vizer would have had an opportunity for a speech. It is satisfactory to find that the gift of eloquence has not died out amongst us. Nothing could have been in better taste, or more powerfully expressed, than the pleadings of the two gentlemen just named, and not the least merit of their arguments was that each steered clear both of sentiment and facetiousness. Mr. Wade's resolution was short and to the point. "That all persons duly qualified (irrespective of sex) being eligible for admission into the Society in accordance with the bye-laws thereof, this meeting is of opinion that ladies should not be excluded from participation in the privileges of the Society." To this Mr. Vizer moved as an amendment, "That this meeting is of opinion that inasmuch as registration under the Pharmacy Act secures all trading rights to persons so registered, and membership of the Pharmaceutical Society in no way increases those rights, it is unnecessary so far as females themselves are concerned, and undesirable on the part of the Society, to introduce so complete a change in its constitution as would be involved by the admission of females as members, associates, apprentices, or students of this Society." The arguments on both sides are so familiar that it is unnecessary to repeat them here.

Hands were counted; there seemed a majority of one against Mr. Vizer; but the division showed 81 for the amendment, and against it 78. We hold to our original conviction, that, granting the calling of pharmacy to be a fit one for the ladies, if they fulfil the required legal conditions, and pass the same examinations as do men, they may reasonably expect not to be refused the understood further privilege of membership. To say this membership is unimportant is disproved by the existence of the Society. That it has been rejected as a privilege by a great number shows that in this case ladies are superior to the great number and have more sense. Trade interest is not the sole advantage concerned in membership, for our Society may rank with the Chemical, the Linnean, and other bodies, membership in which secures both social standing and intellectual gain. Granting, on the contrary, the calling of pharmacy not to be a fit one for the ladies—and this is the opinion of Mr. Sandford—then, with him, we can honestly withhold any extra inducement to pursue a career unsuited to their womanhood. We individually believe in the fitness of pharmacy as a female occupation, but we should be sorry to charge any man with prejudice and narrow-mindedness who thought otherwise.

### A NICKEL COINAGE.

"Nickel," says Professor Attfeld, is a word derived from *nil*, and is a popular German term for "worthless." The mineral now known as nickel ore was formerly called by the Germans *Kupfernickel*, or false copper, and when a new metallic element was found in the ore, the name "nickel" was retained. This metal, once supposed to be useless, has long since asserted its claim to be employed advantageously

in the arts, but it would hardly have been anticipated that petitioners from a penal colony should count upon it as a means of prosperity for the settlement. An Englishman (Mr. Higginson) has proposed to colonise New Caledonia, as Englishmen before his time have colonised Australia. After a long residence in France he went to Nauméa, and set himself without delay to reopen at Thio the working of the nickel mines, for which purpose he engaged numerous assistants. He undertook, moreover, to put in working order the smelting furnaces at Chaleix which are fed by these mines. Employment is thus given to a number of unemployed persons. This new industry having revived the question of the commercial capabilities of nickel, several of those interested have addressed a petition to the Minister of Marine, and directed his attention to the great advantages thus offered to the colony, and suggested the issue of current coin in nickel to be used throughout the French territory in place of the present copper coinage. This monetary innovation has already been adopted in Belgium and other States, and might also, according to the view of the applicants, be introduced into France. Nickel would yield a coinage less heavy than copper, cleaner in use and smaller in size, inoxidisable, and easy to manipulate. There is every reason, judging from actual experiment, the success of which was confirmed at the International Exhibition, to hope that this metal may be accepted. Of course, to extract nickel is one thing, and to find a market for it, another. Were such a scope for its utilisation afforded there would be a certain return for labour expended; the colony would be enriched, and might speedily hope to do without assistance from the mother-country. Besides which, the re-opening of the mines would give abundant work to those convicts who had worked out their sentence, and would help, so far as New Caledonia was concerned, to solve that most difficult of all problems—in what way to provide an honest livelihood to the ticket-of-leave man. It would open one door, at least, when so many are of necessity closed against him.

### AN ADULTERATION ACT FOR THE UNITED STATES.

Dr. Edward R. Squibb, of Brooklyn, whose industry in promoting the advance of pharmacy is remarkable, has forwarded his tractate on "Proposed Legislation on the Adulteration of Food and Medicine." He wishes the subject to be widely and temperately discussed throughout the States. Under the form of government which exists in America a United States law would be inadmissible, but he indulges the hope that were such a law enacted in some large state like New York, other states would in turn follow the example. In order to pave the way for such a desirable end, the doctor submits a rough draft of a proposed law to prevent the adulteration of food and medicine, and to create a State Board of Health.

The writer believes that any law to be effective and of easy application must carefully avoid certain points of difficulty which have been brought out by the British law, particularly as exemplified in the Sale of Food and Drugs Act of 1875. He suggests that some legally-trained mind should examine analytically all the convictions and failures to convict which have occurred under this Act; and all the discussions and recommendations of the British Society of Analysts charged with its execution. To this he would add the report of a commission of the German Empire charged with making investigations during two years past with a view to a law for Germany. Dr. Squibb sums up his introductory remarks with the sensible advice of avoiding inexperienced legislation, which can only end in disappointment. He counsels that America should take full advantage



of that prolonged experience by sending a trained expert to carefully examine the revised English system, and thus a proper law might doubtless be framed, far more efficient than anything that could emanate from mere inexpert suggestions. "In this country" [America] "much time has been lost to this subject by hasty enactments passed without full knowledge of the difficulties to be met, and without full investigation of what has been already done in the way of attempts and failures, or without providing effective means for enforcing the laws thus passed."

New York and the other States have long ago rolled away the reproach of the saying, "Good enough for the American market," a phrase which we find to be historical 30 years back. It will not grieve the most sensitive to contrast the present endeavour to maintain absolute purity with the record of old times. The flagrant adulteration of imported drugs caused the College of Pharmacy of the City of New York to circulate a form of memorial to the Senate and House of Representatives. They invited the co-operation of the College of Philadelphia, and other Colleges of Medicine and Pharmacy; they, moreover, prayed the Society in England to join in the attempt to put down the practice of adulteration. The memorialists desired that a law might be enacted declaring that all imported articles intended for medical use which might appear to the proper Custom-house officer to be spurious, counterfeit, or adulterated should be subject to competent inspection, and, if found to be of base character, confiscated and destroyed. On June 26, 1848, an Act was passed by the Senate and House of Representatives, to prevent the importation of adulterated and spurious drugs and medicines.

A Select Committee of Inquiry having been previously appointed, it was shown that America had become the grand mart and receptacle of the refuse merchandise from the European warehouses, and from the whole Eastern world. Not a single pound of pure Aleppo scammony had passed the New York Custom-house in 12 months. Blue pill was dangerously adulterated; opium, calomel, and sulphate of quinine were in the same condition; compound extract of colocynth was imported which contained not one particle of colocynth; while thousands of pounds of worthless rhubarb-root were sent annually by foreign speculators. The evil had reached a crisis, and circular instructions were issued to collectors and other officers of the Customs.

In referring to this gloomy page of the history of Pharmacy—a page which has been happily cancelled—we have barely space to quote from Dr. Squibb's notes on the working of our own legislation. To prove some of the difficulties met with in the application of restrictive laws in large communities, the Doctor mentions that one court ruled that the sale of diluted gin, though proven, was not to the hurt of the consumer, but that the less gin he took the better for him; therefore the conviction failed. Convictions for the sale of milk of sulphur with 50 to 60 per cent. of plaster of Paris were had, the fines imposed varying from 6*d.* to 6*l.*

Only nominal fines were inflicted for the sale of diluted sweet spirit of nitre, owing to superior expert ability for the defence. "Much difficulty has been encountered for want of standards for comparison, and in regard to the value of different processes of analysis; and Somerset House, as the appellate authority in analysis, has repeatedly reversed decisions of analysts, presumably from lack of proper ability and skill in the latter."

Lastly, the Doctor alludes to a circumstance with which recent transactions have made us familiar. Analysts have taken the initiative, and bought their own samples for analysis, and when necessary entered upon prosecution. "Then came the sweeping decision and failure to convict in

such cases, on the ground that an adulterated article sold to an analyst for examination was not sold to the hurt of the purchaser, as required by the law for conviction. This decision was re-affirmed by an appellate court of high authority, but has just now been re-opened and re-argued, and temporarily reversed, pending the action of Parliament in amending the law." We wish the Doctor and his friends all success in the endeavour to pass a measure for the United States which shall avoid the injustice and absurdity which have characterised the working of the English law.

#### THE DUMMY MODEL STUDENT.

There was once a pillar in a medical lecture-room at Paris which was made responsible for many sins. It was a column of a solid order of architecture, and well adapted for purposes of concealment. We speak of five and twenty years ago, and can testify to its existence at that date. The story went in the current literature of the Quartier Latin, and in students' conversation, that this pillar often served as a convenient excuse for non-attendance. "I have not seen you lately," would say the Professor, when his official signature was requested. "Sir," replied the delinquent, "I was indeed not absent; I had the misfortune to be behind the pillar." Inspired, perhaps, by this traditional anecdote, the Paris students have devised a plan for bringing into ridicule the very large classes which are held at the various Lycées, many of which contain more than 90 scholars. That a professor under such circumstances should recognise the several members of his flock, or give them due attention, is manifestly impossible. More especially is this true, as a man deep in book learning has a habit of wearing spectacles, presumably not by way of ornament. It thus happens that a few favoured students monopolise consideration, while the less promising are left to their own devices. To remedy this evil by a practical exposure the following comedy was played:—

M. Pierron (the name is fictitious) was a savant doubly short-sighted. The amphitheatre where he gave his lessons was for him a place full of mystery: he questioned only the occupants of the front rows, but to make amends, all the written exercises were the object of his minutest care. He read them from the first line to the last, and the next morning commented upon the productions with elaboration.

The students hit upon the plan of creating an imaginary new scholar, whom they called "Piedfer," and his maiden paper was entrusted to many hands. Duly signed, it was presented to the Professor, and at the top the composition bore the classic heading, "Lege quæso," which being interpreted signifies—Please read.

Faults of spelling alternated with correct sentences, and while in the whole production there was much to blame, there was much also to justify encouragement.

"Gentlemen," said the Professor solemnly, "we have a new companion, who has a good deal to learn, but who has capabilities. With work and continuous application I doubt not but that he will succeed."

A week afterwards decided improvement had taken place—the main facts were correctly given; the details only were defective. In a fortnight further advance was quite perceptible, the head students having put their wits together in order to effect so beneficial a result. The esteemed Professor was delighted. "Observe," said he, "what labour and application can accomplish. Tremble, you others, for your reputation"—and having thus unburdened his full soul, with a sudden inspiration he exclaimed—"Come hither, Piedfer, and answer the questions which I am about to put." There was a dead silence through the class, when some timid voices volunteered an explanation. "He was taken ill, sir, yester-

day, and cannot come." "Alas!" said the Professor, "how often do we find that rare intelligence has to fight against a sickly constitution!"

A week later the recovery of Piederfer was announced, at least, so far as that the brilliant student might be represented by an irreproachable school exercise. The Professor would have embraced his pupil on the spot and in the presence of all his associates. Unfortunately there had been a relapse, and as the plot must soon have been detected, the following morning there was handed in the usual lithographie announcement of his death. The worthy man was visibly affected, and proceeded to pronounce a funeral oration worthy of Bossuet. Thus he spoke. "The student Piederfer deserves our united regret. He has passed away like one of those meteors which shine for a moment only to be extinguished in a darker night, and to be forgotten. Like Caesar, he might have said, 'Veni, vidi, vici.' But for the premature death of our gifted friend, the rest of you would have had no chance. We scarcely had the time to know him; the duty of mourning over his memory remains. May his progress teach you, my young hearers, how much in a brief time perseverance and obedience to the counsels of a master can achieve. Compare his last copy with his first, and then say to yourselves, 'No one need despair.' Piederfer, noble victim of work and assiduity! in my own name, and in that of all, I bid thee farewell."

So ended the discourse, and as "a verse may find him whom a sermon flies," the harmless pleasantry may stand in better stead than a formal protest.

## The Pharmaceutical Council.

### THE ANNUAL MEETING OF THE PHARMACEUTICAL SOCIETY.

THE President took the chair at noon, about 150 members being present. The business was commenced by a short address from the President, who referred to the recent action against the London and Provincial Supply Association, the use of apothecaries' weights and measures, the Hanbury and Benevolent Funds, and the fund for the relief of pharmacists at Szegedin.

The report was then taken as read, and its adoption was moved by Mr. Vizer and seconded by Mr. Owen.

The opening paragraphs of the report may be here reproduced:—

Since the annual meeting of 1878, much agitation has prevailed in the Pharmaceutical Society, and the Council are quite aware that they labour under an injurious but unjust suspicion of having been unmindful of the trade interests of pharmacy, interests so important to each individual member of Council as well as to the Society generally, that such negligence would indeed be inexplicable. Evidences of this feeling of distrust have been so distinctly and recently pronounced that it seems desirable to disabuse the minds of those by whom it has been entertained, before proceeding to report the ordinary business of the year. It is the duty of those to whom are confided in trust the interests of body corporate, to give due consideration to the purport objects of the institution over which they preside, as well as to guard the rights and privileges pertaining thereto. Thus when individual members of the Pharmaceutical Society were threatened with prosecution by the Society of Apothecaries, or rather by the "Medical Defence Association" acting through that Society, it behoved your Council to consider in what way they could best proceed to fulfil this twofold obligation.

Looking back to the principles enunciated by the founders of the Pharmaceutical Society it must be apparent to all

that there never was the slightest intention on their part to embrace "medical practice," properly so-called, in the business of a chemist and druggist. The very words of the Pharmacy Act expressly state that the examinations of the Society "shall not include the practice of medicine, surgery, or midwifery," and the expressed desire was so to elevate the business of pharmacy that those who practised it should find it both more dignified and remunerative to confine themselves to their legitimate pursuits. By this means it was hoped the business of dispensing would ultimately fall more completely into the hands of chemists. Gradually medical practitioners are ceasing to prepare their own medicines, and are but too glad to do so where opportunities serve; but this change cannot be accomplished all at once, and the desired end would be considerably deferred by any spirit of antagonism between members of the medical profession and chemists. Notwithstanding this, the Council have never been unmindful of the fact, that in the everyday exercise of his business the chemist must more or less give such advice over his counter, as by a strained interpretation might be called "Medical practice," or as Baron Bramwell expressed it, abreach of the law for *which it would be very unreasonable to prosecute him*. The Council, therefore, determined not to stand forth to protect alleged offenders, whoever they might be, and however they might have conducted their business, relieving men of all individual responsibility and frustrating to some extent one object of this Society. On October 4, 1876, the following resolution was passed:—

That this Council is prepared to consider the case of any chemist and druggist who is threatened with vexatious proceedings for alleged infringement of the Apothecaries Act, and if circumstances warrant, to defend the same.

And on August 1, 1877, when a specific case was brought before the Council, it was resolved—

That this Council authorises its solicitor at his discretion and at the expense of the Society, to defend the gentleman referred to in the threatened prosecution by the Apothecaries' Society.

The case on which this resolution was passed was not further proceeded with by the Society of Apothecaries.

In its desire to use every effort to avert vexatious prosecutions it appeared politic for the representative body of the Pharmaceutical Society to come to a fair general understanding with the Society of Apothecaries to prevent such prosecutions. This was the more easy as, although the Society of Apothecaries might occasionally be urged to prosecute by the pressure of some Defence Association, they were themselves ready to admit as fully and freely as it was urged on them by others that what has been termed "counter-practice" by chemists has ever been and ever must be a necessity, a practice not to be regarded as an offence. Absolutely to define the boundary of this debateable land seems to be impossible, but by the communications which have taken place between the solicitors of the two societies the Council feel convinced that the best interests of the members of the Pharmaceutical Society have been promoted and the honour of the Society upheld, and that in due time this will be acknowledged by those who have been loud in their denunciation.

During the past year upwards of 350 cases of infringement of the Pharmacy Act have been reported to the Council. The great majority of the offenders yielded to the notices of the Registrar, and discontinued their illegal practices. In several instances, however, it has been found necessary to employ the Society's solicitor to enforce obedience to the law. When accused persons undertake to discontinue their offences it is the Registrar's duty, after a stated interval, to ascertain that the undertaking has been faithfully kept; it is hoped local secretaries will aid him by observation and information.

Then followed an allusion to the action of the Society against the London and Provincial Supply Association. The examination, the museum, and library were dealt with, and the Daniel Hanbury fund, the evening meetings, and the School of Pharmacy were referred to with satisfaction. The Committee to amend the Pharmacy Act was mentioned, and references to the Dental Practitioners Act, the regulations for weights and measures, and the Benevolent Fund concluded the report. The following was the



FINANCIAL STATEMENT FROM JAN. 1 TO DEC. 31, 1878.

*Receipts.*

	£	s.	d.	£	s.	d.
Balance in Treasurer's hands, January 1, 1878				1,064	19	5
Balance in Secretary's hands, January 1, 1878				74	2	4
London and Westminster Bank—On deposit..				1,000	0	0
Life Members' Fund—Interest .. .. .				88	10	0
Government Securities—Interest .. .. .				501	10	0
Deposit Note—Interest .. .. .				16	9	6
Subscriptions:—						
1,759 Members, Pharmaceutical Chemists..	1,846	19	0			
825 „ Chemists and Druggists .. .. .	866	5	0			
899 Associates in business .. .. .	943	19	0			
807 Associates not in business .. .. .	423	13	6			
1,040 Apprentices or Students .. .. .	546	0	0			
26 Entrance Fees .. .. .	52	10	0			
	4,697	6	6			
Fines upon restoration to the society..	51	19	6	4,731	6	0
Examination Fees:—						
1,232 Preliminary Examination Fees ..	2,258	11	0			
35 Modified „ „ .. .. .	34	13	0			
637 Minor „ „ .. .. .	1,798	13	0			
82 Major „ „ .. .. .	364	7	0			
				4,456	4	0
Registration Fees:—						
14 Registration Fees as Chemists and Druggists .. .. .	73	10	0			
8 Fees for restoration to the Register ..	8	8	0			
				81	18	0
Balance due to Secretary, December 31, 1878				17	8	5
Balance due to Mr. Mackay, Honorary Secretary of the North British Branch, December 31, 1878 .. .. .				58	8	8
				12,090	16	4

*Expenditure.*

	£	s.	d.	£	s.	d.
Balance due Mr. Mackay, N.B. Branch, Jan. 1, 1878 .. .. .				48	10	0
Apparatus .. .. .				19	15	8
Annuity—Dr. Redwood .. .. .				100	0	0
Carriage of books to or from the Library, and other parcels .. .. .				17	8	8
Certificates of death .. .. .				15	8	9
Conversazione .. .. .	124	15	3			
Pharmaceutical meetings .. .. .	30	11	10			
				155	7	1
Examiners, Boards of—						
England and Wales						
Scotland						
Fees to examiners	774	18	0	176	8	0
Fees to superintendents — Prelim. examination ..	193	4	0	24	3	0
Hire of rooms for conducting prelim. examination	53	10	6	4	6	6
Travelling expenses	168	18	6	12	8	10
Refreshments for examiners ..	71	3	10	6	10	5
Apparatus, drugs, chemicals, for examinations and sundry charges in connection therewith ..	47	10	6	25	1	5
				248	18	2
				1,309	5	4
				1,558	3	0
Fees to the College of Preceptors				119	3	6
Deputations to and from Scotland				84	10	3
				1,761	17	3
Fixtures and fittings .. .. .				256	0	1
Furniture .. .. .				98	7	11
Gratuity to a late clerk now paralysed ..				10	0	0
Horse expenses .. .. .				230	15	0
Journal .. .. .				767	8	9
Laboratory:—						
Professor of Practical Chemistry—Endowment of chair..				100	0	0
Prize medals, &c. .. .. .				4	16	6
				104	16	6
Law Charges .. .. .				232	15	3
Lectures:—						
Professor of Chemistry and Pharmacy—Endowment of chair ..				100	0	0
Professor of Botany and Materia Medica—Endowment of chair ..				100	0	0
Subscription to Royal Botanic Gardens ..				21	0	0
Prize medals, &c. .. .. .				12	2	0
				33	2	0
Library:—						
Librarian's salary .. .. .				200	0	0
Purchase of books, &c. .. .. .				130	8	2
				330	8	0
Purchase of books, &c.—Hanbury Fund ..				21	15	0

	£	s.	d.	£	s.	d.
Museum:—						
Curator's salary .. .. .	200	0	0			
Catalogue of Chemical Museum .. .. .	105	5	6			
Gratuity to the Curator for extra work in preparing catalogue .. .. .	21	0	0			
Paris Exhibition—Curator's travelling expenses and cost of procuring specimens ..	26	0	0			
Specimens, bottles, and sundries .. .. .	68	14	9	421	0	3
Branch of the Society in Scotland:—						
Assistant-secretary in Scotland—Salary ..	130	0	0			
Furnishing account .. .. .	2	17	4			
Current expenses .. .. .	132	17	1			
				265	14	5
Postage .. .. .				443	2	9
Register .. .. .				43	5	2
Repairs and alterations .. .. .				537	16	10
Rent, taxes, and insurance of plate glass ..				396	10	5
Returned subscriptions to Associates ..				17	6	6
Stationery, engraving, printing, and office expenses .. .. .				303	16	7
Salaries:—						
Secretary and Registrar:—						
Salary .. .. .	450	0	0			
Rent .. .. .	100	0	0			
				550	0	0
Assistant-secretary .. .. .				287	10	0
Clerks and servants .. .. .				705	17	6
				1,543	7	6
Cost of materials supplied to the Bell Scholars				10	0	0
Council prizes and herbaria medals .. ..				8	12	6
Sundries .. .. .				9	8	11
Travelling expenses—country members of Council .. .. .				242	14	3
Refreshments for Council .. .. .				38	8	9
Balance, December 31, 1878:—						
In treasurer's hands .. .. .	1,905	15	5			
London & Westminster Bank. On deposit..	1,500	0	0			
				3,405	15	5
				£12,090	16	4

Mr. MACKENZIE (Edinburgh) asked a few questions about some of the minor expenses, and then criticised the conduct of the Council generally. He wanted to see a single examination only, the distinction between Major and Minor to be abolished. He also urged that a demand should be put forth for an equal voice in drawing up the next Pharmacopœia.

Mr. URWICK criticised some of the financial details, especially the increase of fees to examiners and the extra expenditure which had been caused by the journal. On this point some confusion arose from the fact that the journal item appears on the balance-sheet as a loss, none of the money paid as subscriptions to the Society being credited to that account.

Mr. SHEPPERLEY made a short but telling speech. He alluded to the unjust remarks which had been made by prominent members of the Society in reference to himself, and while disavowing any bitterness of feeling, said he thought the Council might at least have made independent inquiries into his case, instead of taking information from a source which was not reliable.

Mr. PASMORE said that he first had brought before the Council the case of the London and Provincial Supply Association, and complained that the Assistant Secretary had treated him somewhat cavalierly.

Subsequently, the PRESIDENT, on behalf of the Assistant Secretary, said that Mr. Pasmore's facts had been laid before the Council at the earliest possible opportunity.

Mr. BROAD did not understand the journal account, and he also expressed his opinion that there was not much inducement for students to pass the Major examination.

Mr. WHITTLE thought these criticisms of paltry items were unworthy of the meeting, and Mr. RANDALL vigorously defended the Council, who, he said, had a heavy weight of responsibility on them. He wished the Council to believe that there was a large amount of gratitude in the country felt for their services. After a few more desultory remarks the report was adopted.

Mr. WADE then moved a resolution, of which notice had been given, advocating that persons otherwise eligible for admission as members of the Pharmaceutical Society should not be excluded on account of their sex. He urged the adoption of this motion simply as an act of justice, and he pressed the members to set aside both sentiment and prejudice. The proposal was seconded by Mr. Postans.

A negative was moved by Mr. Vizer and seconded by Mr. Mackenzie.

Messrs. Hampson, Humpage, and Savage spoke in favour of the motion, and Mr. Sandford argued against it. The

speeches on both sides were listened to with much weariness and impatience, and after Mr. Wade had replied a show of hands was taken, which the President declared was in favour of the motion by one vote, 66 to 65. A division was demanded, and this resulted in the following manner:—

For Mr. Vizer's amendment	...	...	81
Against	...	...	78
Majority	...	...	3

The motion was therefore lost.

After the completion of some formal business the meeting was made special in order to approve of certain modifications in the bye-laws in reference to the payment of subscriptions.

#### THE NEW COUNCIL.

An adjourned meeting of the Society was held on May 23 to receive the report of the scrutineers appointed to examine the voting papers. The official details were as follows:—

Voting papers reported by the Secretary to have been issued	..	..	3,586
Voting papers received	..	..	1,732
Voting papers issued but not returned..			1,854
Voting papers received	..	..	1,732
Voting papers disallowed:—			
Informal	..	..	10
Received by post too late	..	..	99
Envelopes unsigned by voters..	..	..	17
			126
Voting papers registered	..		1,606

#### Result of the Poll.

Churchill	..	..	1,288	Richardson	..	..	1,015
Symes	..	..	1,271	Robbins	..	..	904
Hampson	..	..	1,228	Squire	..	..	793
Woolley	..	..	1,217				
Shaw	..	..	1,161	Cracknell	..	..	767
Savage	..	..	1,158	Spink	..	..	727
Bottle	..	..	1,098	Owen	..	..	726
Atkins	..	..	1,078	Fitch	..	..	701
Rimington	..	..	1,058	Butt	..	..	630
Frazer	..	..	1,053	Horncastle	..	..	618
Williams	..	..	1,016				

The first fourteen on the above list, together with the seven who remained on the Council by ballot, form the Council for the current year. The seven are Messrs. Gostling, Greenish, Hills, Mackay, Sandford, Schacht, and Slipper (*rice* Fairlie resigned).

#### THE MEETING OF COUNCIL.

The first meeting of the new Council occurred on June 4, all present except Messrs. Rimmington and Slipper. The first business was the election of a new

#### PRESIDENT AND VICE-PRESIDENT.

The vote was taken by ballot as usual, and the choice fell on Mr. Sandford as President, and Mr. G. F. Schacht as Vice-president. Complimentary speeches in reference to the retiring President and Vice-president were made, and votes of thanks for their services were passed. For the post of

#### TREASURER

Mr. Greenish was re-elected.

The Secretary and Assistant-Secretary, Editor and Sub-Editor were also re-appointed.

#### WEIGHTS AND MEASURES.

A letter from the Board of Trade was read, enclosing a draft schedule of apothecaries' weights and measures which it was proposed to legalise. These consisted of the following—Weights: 1, 2, 3, 4, 5, 6 grains; 1 and 2 scruples;  $\frac{1}{2}$ , 1, 2, 4 drachms; 1, 2, 4, 6, 8, 10 ounces. Measures: Minims, 1 to 60; fluid drachms,  $\frac{1}{2}$  to 16; fluid ounces,  $\frac{1}{2}$  to 40. The President said his only observation on the schedule was that the  $\frac{1}{2}$  scruple was omitted. Mr. Williams said it had been included in the list submitted by the Council to the Board. Mr. Bottle said without it 17 grains could not be weighed with one set of weights. (6, 5, 4, 2 = 17; how's

that, Mr. Bottle?) The President undertook to write to the Board of Trade, to suggest the addition of the  $\frac{1}{2}$  scruple weight to the schedule.

#### ADDITION TO REGISTER.

Mr. Henry Charlton, 21 Dock Street, Sunderland, he having fulfilled the necessary conditions.

#### COMMITTEES.

On the motion of Mr. Shaw it was unanimously agreed that provincial members of the Council should be paid their travelling expenses when they attended committee meetings other than those on the days preceding the Council meetings. The various committees were then appointed. On the motion of Mr. Hampson a special Pharmacy Act Amendment Committee, consisting of Messrs. Bottle, Gostling, Greenish, Hampson, Mackay, Symes, Williams, and Woolley was appointed. The President preferred that this should be a sub-committee of the General Purposes Committee, but the majority thought it would be more convenient that this committee should be independent.

#### GIFTS TO THE MUSEUM.

Among others some carboic acid specimens from Messrs. C. Lowe & Co., and a sample of opium from Mozambique, being a portion of the first crop ever collected there, from Messrs. T. & H. Smith & Co. were announced.

#### PAYMENT OF COSTS AND FINE BY THE LONDON AND PROVINCIAL SUPPLY ASSOCIATION.

The President read a letter from the Solicitor, announcing that he had received the taxed costs and the 5% penalty from the defendants in the recent trial of The Pharmaceutical Society v. The London and Provincial Supply Association (Limited).

#### THE ANNUAL DINNER

Of the members of the Pharmaceutical Society and their friends was held on May 20 at Willis's Rooms, the company numbering about 130. Mr. John Williams, President of the Society, was in the chair, with Dr. Slaughter, the Master of the Apothecaries' Society, on his right, and Dr. Cottle, President of the Medical Society, on his left. Professor Tyndall, Professor Williamson, Mr. Erasmus Wilson, Sir P. Cunliffe Owen, Dr. B. W. Richardson, Professor Dewar, Mr. Callender, Mr. Wyndham Cottle, Dr. Langdon Down, Professor Bentley, Mr. W. Somerby, and Dr. Ramsay were among the guests.

The CHAIRMAN proposed all the toasts except the last, to which he responded, in speeches of commendable brevity. The guests who spoke were none of them tedious, and a brisk despatch also characterised the musical department. The result was that the programme was completely finished by 10 P.M., leaving a pleasant hour or two for general conversation.

Professor ERASMUS WILSON responded for "The Army, Navy, and Reserve Forces." He claimed special connection with the Navy, having been born on board one of Her Majesty's vessels. He was also a subscribing member to a Richmond volunteer corps.

To the toast of "Science" Professor WILLIAMSON responded, in a neatly-turned speech, in which he showed to what a remarkable extent in recent years scientific men had associated and cultivated social relationships, and finished by commenting on the service which pharmacy rendered, on the one hand to the public, in disseminating a knowledge of chemistry, and, on the other, by providing a cradle from which many eminent chemists were reared.

"The Honorary Members" was next given, and Professor TYNDALL was called on to reply. After remarking first that he had but little of the humour necessary for after-dinner speeches, the speaker went on to remark on the progress of scientific views in the medical profession, of which, he said, the pharmacists formed a part. He commended the conservative tendency which prevented great corporations, such as the medical profession, from being wafted about by every new wind of doctrine. These views, however, were irresistible, and it was interesting to watch how they made their way. The Professor then eulogised, with considerable



warunth, the researches of Dr. Thorne Thorne at Caterham, and those of Dr. William Boud at North Tawton, into the causes of epidemics.

The President of the Medical Society (Dr. Cottle) spoke for "The Medical Profession," and Sir Philip Cunliffe Owen replied for "The Visitors," in short complimentary speeches.

Dr. SLAUGHTER, the Master of the Society of Apothecaries, then proposed "The Prosperity of the Pharmaceutical Society, and the Health of the President," and took the opportunity of saying that he, as representing the ancient Society of Apothecaries, proposed that toast with great pleasure, as the apothecaries look on the Pharmaceutical Society as having in great measure acted in accordance with their own views in suppressing, as much as possible, the assumption, by persons who had not received a fitting education, of the duties of the medical profession.

Mr. WILLIAMS, in responding, expressed his gratification at the cordial reception of the toast. The defective manner in which he had discharged some of his duties at least, he said, was evident to all, but the future was before the Society, and a new President would soon have to be elected, under whom he hoped the Society would enjoy greater prosperity than it had ever had before.

## The Chemists and Druggists' Trade Association of Great Britain.

### THIRD ANNUAL MEETING.

THE third annual meeting of this Association was held at the Inns of Court Hotel, Lincoln's Inn Fields, W.C., on Tuesday, the 20th ult. Mr. S. Ulysses Jones, of Leamington, the President, occupied the chair. The proceedings commenced with a

### GENERAL COMMITTEE MEETING.

Which was held in the Arbitration-room. The business transacted by the Committee was mainly of a formal character. The report was taken as read, and, on the motion of Mr. Whitfield, seconded by Mr. Pollard, was unanimously adopted.

The Committee then balloted for the Executive Committee for the ensuing year, and the following names were read out as the successful candidates for England and Wales:—Frederick Andrews, London; C. J. Arblaster, Birmingham; Thomas Barclay, Birmingham; C. B. Bell, Hull; W. J. Churchill, Birmingham; F. A. Cole, Colchester; W. G. Cross, jun., Shrewsbury; G. A. Cubley, Sheffield; George Delves, Exeter; Robert Hampson, London; T. W. Holdsworth, Birmingham; William Jervis, Sheffield; S. U. Jones, Leamington; Joseph Maltby, Lincoln; John Owen, London; Richard Reynolds, Leeds; John Shaw, Liverpool; William Southall, Birmingham; Charles Symes, Liverpool; John Wade, London; George Walker, Coventry. Scotland: Thomas Davidson, Glasgow; Charles Kerr, Dundee; James Mackenzie, Edinburgh.

On the motion of Mr. EDWARD WHALEY, Kingston-on-Thames, seconded by Mr. J. HORNCastle, London, it was resolved to recommend the above-named gentlemen to the annual general meeting for election for the ensuing year.

### THE GENERAL MEETING

Was held in the Banqueting-room. The Secretary having read the notice convening the meeting,

The CHAIRMAN (Mr. S. U. Jones, of Leamington) said, as President of the Association, he supposed he was expected to make a few remarks, but he would occupy only a short time, as there was a good deal of business to do. He could not forbear expressing his sense of pleasure in meeting them on that occasion. They had had a great many burning questions, and one of the greatest had been that of Shepperley. He was pleased to say that case had been brought to an end. It had been very ably argued by an able man, and he trusted that the matter now would rest, and that

chemists would no longer be harassed on the question of simple counter-prescribing. They had no very burning question before them at the present time. The desire and the object of their Association was not to trespass upon the rights or interfere with the privileges of any other body. It was merely to secure their own rights. Of course, he need not tell them that after two years of legal trouble a great deal of money had been spent. Unfortunately, the taxed costs had not yet been paid. They had already spent 1,200*l.*, but hoped to receive upwards of 200*l.* back. No alteration had been made in the Bill before Parliament, but the matter was still watched by a committee appointed for that purpose. They (the Association) were desirous of doing everything they could to protect their interests from any unjust attack, or any aggression of what they believed to be the rights and privileges of chemists and druggists. He would just state before concluding that a cheque had been sent to Mr. Shepperley for his expenses in the case, but he had very kindly returned it.

### THE REPORT

Detailed the history of the Shepperley case during the past year, and gave the following statement in regard to the Wiggins case:—

This case was tried before Mr. Justice Field and a common jury, in the Courts at Westminster, on May 23 and 24, 1878, the plaintiffs taking a different and more oppressive course in this case by laying the action in the Court of Exchequer instead of in the County Court. At the time Mr. Wiggins was sued by the Apothecaries Company for the sum of 40*l.*, he had an interview with the members of the Law Committee, and was fully and carefully questioned as to the nature of his business. His replies being considered satisfactory, a resolution was passed instructing the Solicitor to put in an appearance to the writ, with a view to obtain particulars of the cases in which it was alleged the defendant had acted and practised as an apothecary, *as no particulars were stated on the writ*. On an appearance being entered to the writ, particulars were asked for and *refused by the plaintiffs*. An application was then made to a Judge in Chambers for an order to compel plaintiffs to furnish particulars, when Mr. Baron Cleasby ordered particulars to be given. The particulars then delivered consisted of certain persons' names, but no addresses or information as to the nature of the complaints. Counsel then applied to a judge for an order for additional particulars, which was refused, and, in the opinion of counsel, it was considered useless to appeal against this decision, so that until the witnesses for plaintiffs gave their evidence in court the Solicitor of the Association had no idea of the specific charges that were to be brought against the defendant. From these facts it will be seen that every possible means was taken by your Law Committee to ascertain the particulars of the cases on which the Apothecaries' Company had ordered the prosecution, but without avail; and as the new trial in Mr. Shepperley's case was at that time pending, the Association would have failed in protecting the interests of the trade had it permitted an action, the particulars of which were unknown, and which might at the trial have proved to be cases of the most simple and trivial description of counter-practice, to pass undefended.

Although the decision was against the Association, it was not unfavourable to the trade, as the finding of the jury was not simply that the defendant had acted and practised as an apothecary, but that he had acted and practised as an apothecary *in taking cases that were dangerous*. The position of matters at that time appeared to be, that whereas chemists might possibly prescribe for simple ailments in their own shops, they nevertheless ran the risk of an action being brought against them by the Apothecaries' Company if the complaints treated subsequently developed into those of a serious nature.

The action of the Committee in defending two cases under the Sale of Food and Drugs Act, and in regard to the Dentists Act, the Medical Bill, and the Sale of Food and Drugs Act was also described.

The concluding paragraphs were as follows:—

At the last Annual General Meeting a resolution was passed to the effect that a special effort be made to raise at least 2,000*l.* by donations, to be used in protecting and furthering the legitimate interests of chemists and druggists.

The response to this appeal has been prompt and liberal, proving the strong determination to uphold the Executive in vigorously defending the rights of the trade. It will be seen from the annexed balance-sheet that the sum of 1,645*l.* has been contributed during the current year, a considerable portion of which has been expended by the Executive in the defence of counter-practice.

On May 28 last the Secretary, acting on the instructions of your Committee, addressed a communication to the secretary and registrar of the Pharmaceutical Society, asking the Council of the Society to assist the Association by a donation to aid it in prosecuting the appeal in the case of the Apothecaries' Company *v.* Shepperley, on the grounds that in the opinion of the Executive the issues involved in that case were of vital importance to chemists generally. This application did not meet with the favourable consideration of the Council.

The numerical strength of the Association still continues to increase, 406 chemists having become members of the Association since the last audit, during which period there have been 93 erasures from the register, making the total number of members at the present time 4,346. Your Committee is, however, extremely anxious to still further augment the strength of the Society, and takes this opportunity of impressing upon those gentlemen who have in the past so materially aided in its organisation, the need in which the Association stands for still greater extension, in order that its sphere of action may be enlarged and its general utility increased.

By order of the Executive Committee,

W. F. HAYDON,

Office of the Association, Secretary.  
Birmingham, May 5, 1879.

#### FINANCIAL STATEMENT FROM APRIL 18, 1878, TO APRIL 18, 1879.

##### *Receipts.*

	£	s.	d.	£	s.	d.
Balance brought forward from last account, viz. :—						
Balance at bankers .. ..	463	9	7			
Ditto in Treasurer's hands .. ..	54	7	7			
4,570 annual subscriptions at 5 <i>s.</i> .. ..	1,142	10	0			
Donations .. ..	1,645	19	6			
	2,788	9	6			
Less—Outstanding subscriptions and donations .. ..	345	9	6			
				2,443	0	0
				2,960	17	2

##### *Expenditure.*

	£	s.	d.	£	s.	d.
Advertisements .. ..				28	14	0
Auditors' charges .. ..				18	18	0
Canvassing expenses .. ..				9	7	0
Hire of rooms for public meetings .. ..				9	9	6
Law costs, viz. :—						
Costs—Apothecaries' Company <i>v.</i> Wiggins .. ..	116	11	8			
Counsel's fees .. ..	204	12	0			
Solicitor's charges .. ..	248	10	11			
Ditto travelling expenses .. ..	45	3	6			
Witnesses' charges and expenses of .. ..	226	16	5			
Office expenses, viz. :—				841	14	6
Cleaning, &c. .. ..	3	12	6			
Gas .. ..	9	1	10			
Rates and taxes .. ..	7	13	7			
Rent .. ..	26	0	0			
				46	7	11
Postages .. ..				178	9	2
Reporting .. ..				92	0	0
Salaries, viz. :—						
Secretary .. ..	300	0	0			
Clerks .. ..	124	9	8			
				424	9	8
Stationery and printing .. ..				252	9	2
Sundries .. ..				13	14	7
Travelling expenses, viz. :—						
Executive Committee .. ..	114	7	9			
Secretary .. ..	34	13	5			
				149	1	2
				2,084	14	8
Balance at bankers on deposit account .. ..	800	0	0			
Ditto current account .. ..	65	0	10			
Ditto in Treasurer's hands .. ..	31	1	8			
				896	2	6
				2,960	17	2

We have examined the foregoing account with the books and vouchers of the Association, and find it correct.  
Birmingham, April 28, 1879. (Signed) LAUNDY & CO., Auditors.

Mr. HAFENDEN said he had great pleasure in moving the adoption of the report. It was an honour to be connected with an association that had done such good work during the past year. Last year they were under a cloud; this year they began with a balance in hand. There was still work to do; and work that they could do without being antagonistic to the Pharmaceutical Society. It was not their nature to be satisfied. They wanted to go on. They wanted to consolidate themselves, and no doubt there was work still remaining for the Pharmaceutical Society, and for the Trade Association. He warmly and heartily moved that the report as presented be adopted.

Mr. CHARLES SYMES (Liverpool), in seconding the adoption of the report, said it was a simple statement of facts. It seemed to him as if he could read in that report something that had been done for the benefit of the trade generally; and not only for the trade generally, he also felt it had been of some benefit to himself. If all chemists throughout the country could read that report he was convinced they would join an Association doing such good work. There was nothing to apologise for. The Society had done its work, and had done it in a conscientious manner, and it needed no apology for anything it had done. It did not assume to itself any defined right to exercise its prerogative against its members. The report began by stating a case which he at first somewhat regretted the Association had gone into. They had in a very concise form the facts which led to their undertaking the Wiggins case, and he felt sure that when they read them they would feel that there was not a shadow of blame for undertaking that case, although it did not turn out as satisfactorily as they could have wished. To meet the large expenses an appeal had been made. If the statement of that special fund, and the manner in which the whole country set to work to get together the money that was asked for to carry out the case, had been placed at the end of the Shepperley case it would perhaps have shown a conclusion. The way that the whole country came forward on that occasion showed that the chemists and druggists of the present day, like the chemists and druggists of the past, were still determined to maintain their rights. He would call attention to the action of their Association, which was mentioned in the report, with regard to the Adulteration Act, and the endeavour to devise some better means for recovering expenses when such prosecutions fell through. He considered it was discreditable that any such law as the law of adulteration should exist. They, in the present day, were being competed with by co-operative and other societies. They were being harassed by Medical Defence Associations. But in the face of all that, and suffering as they did from the depression of trade, he thought it was a most unfair and unjust thing for any Government to endeavour to rob them of their just rights, and he admired the course taken by their Association in defending their cause. But they were not desirous of keeping up any agitation where agitation was not necessary.

Mr. ELLWOOD had very great pleasure in supporting the adoption of the report. It was most satisfactory, and contrasted very favourably with the report which had been put forward by the Pharmaceutical Society.

Mr. HAMPSON said the national Pharmacopœia laid down the basis of purity and of preparation, and he wanted to have the opinion of the meeting, if he could extract it, as to the advisability of chemists generally having some voice in the preparation of that Pharmacopœia. He wanted the idea to go abroad that chemists should have something to do with the preparation of that Pharmacopœia. It rested almost solely—it did technically—with the Medical Council. He believed that the last Pharmacopœia was a great improvement upon all others; but, as chemists, it was their duty to look to their interests in that matter. In defending themselves before a court of law, they had to appeal to that Pharmacopœia. He contended that they ought to have an equal voice in that matter. If there were a dozen to prepare that Pharmacopœia, they ought to have half-a-dozen on that committee. Yet they were simply, as it were, helpless at present. He wanted them to consider that matter. They would probably have to contest their position—they would probably have to agitate until they arrived at what they desired; but he looked forward to the time when they would have a representation on the Pharmacopœia committee. This



was the third year of the Association's existence, and he found they had not reached 5,000 members. He would not complain; but, on the other hand, he thought it was the duty of every chemist in this country to become a member of their Association. How could they carry out their principles unless they were backed by the whole country? They wanted to feel that they had something in the bank—something that they could fall back upon when the occasion arose. He appealed to every member of the trade in Great Britain to join the Association as a matter of duty. Five shillings a year was a very small matter. The milkmen—he was going to say the cat's-meat men—(laughter)—had some kind of association to defend their interests. They lived in an age of over-legislation and active competition, and it was their duty to make their Association strong as well as useful.

Mr. SHEPPERLEY said the question with which his name had been prominently placed before the notice of the trade for some time past having been referred to, he felt constrained to say a few words, more especially to acknowledge his own personal sense of the unceasing efforts the Executive, the Solicitor, and their indefatigable Secretary had one and all thrown into a cause which had been surrounded, technically and in other ways, with difficulties of no common order. The success which had attended upon that cause had ensured the position of the Association more than any of their other comparatively numerous undertakings. But he could not allow that opportunity to pass without expressing his own personal sense of the sound judgment and good the generalship of those gentlemen who guided the steps of their well-planted, vigorous, flourishing, and, he trusted, still ever-increasing Association.

Mr. URWICK congratulated the Association upon the work it had done in the past year. They had a Society which was not driven to act for them, but which was really willing when they were in trouble to investigate and assist them. It had done good work in Shepperley's case. It was through their Society that the Pharmaceutical Society was urged to take steps against the co-operative stores. He trusted the course taken would be of great benefit to the trade at large. They had begun at the right end, and, if finally successful, he hoped they would go on. Many of the stores, he knew, were quaking in their shoes. The Trade Association, by the good work it had done, had a claim upon the support of the whole trade.

Mr. ANDREWS had not expected to hear anything on the Pharmacopoeia at that meeting; but he had felt for many years that the chemists had a right to have a voice in its preparation. On the last a chemist was employed by the physicians. When the new Pharmacopoeia did come, he trusted that the chemists and druggists of this country would be able to make their voices heard in the framing of it.

Mr. FITCH, referring to the mixing of drugs, contended that if knowledge was required all those things ought to be handed over to them for exclusive preparation. Both Societies—the Trade Association and the Pharmaceutical—had said that they had nothing to fear from future legislation, but there was a provision in the Bill before Parliament that whoever practised for gain was subject to such and such a penalty—

The Solicitor, interposing, pointed out that Mr. Fitch was wrong, and explained that to come under the penalties it was necessary that he should not only practise for gain, but that he should do other things as well: that he should assume titles, &c.

Mr. THOMAS BARCLAY (Birmingham) thought it desirable that they should, at this stage of the proceedings and of their existence, take a short review of the past, and also see what they had to do in the future. Dr. Symes had called attention to the omission, in the report, of statistics in connection with the 2,000*l.* fund. He should like to answer him on that point, and he thought it would also be of interest to the meeting generally to know something about the finances of the Association. The 2,000*l.* fund, as they would recollect, was started at the last meeting, and during the year 1,645*l.* had been raised. He then gave the details, showing how the amount had been raised in donations from 1*l.* and upwards. The Liverpool Registered Chemists' Association, which ought to have the honours of the day, had sent 30*l.*; and 102*l.* was received from the wholesale and retail trade of Liverpool; 710*l.* had been subscribed in large amounts; 935*l.* had been raised by the rank and file of the trade in

small amounts. The members of the Association in the first year numbered 2,880, the next year 3,940, and the present year 4,346. There were between 7,000 and 8,000 chemists in the trade, and the Association, to be thoroughly successful, ought to embrace the whole of them, and they ought not to rest satisfied until the whole of the trade was brought into it. This year there was 345*l.* in outstanding subscriptions, and he hoped that everything would be done to get in those subscriptions. Something had been said in regard to Shepperley's case that day. It was said in some quarters that it was not a test case. But he thought the apothecaries considered it a test case. They laid their plans very carefully, and therefore from their standpoint it must be a test case. One of the advantages arising from Shepperley's case was that it elicited public opinion in favour of the chemists and druggists throughout the country, and of their acting in defence of simple counter-prescribing, and the gratitude which had been evoked generally showed that they had the sympathies of the entire public with them, with the exception of a few ultra-medical men. He was sure it was not the feeling of medical men generally that counter-practice should be put a stop to. In regard to the Pharmacopoeia, he thought it was a very important question. They must not forget that till very recently the medical practitioners very largely consisted of apothecaries, and took a very active part in compounding medicines. But he thought the Medical Council would now recognise the rights of chemists to be associated with the Medical Council in the preparation of the Pharmacopoeia. With such gentlemen as Dr. Symes and others on the Council they should be quite looked after in that quarter. He regretted that they were to lose the services of Mr. Greenish on their own Council. He had done yeoman's service. He was not leaving from want of sympathy with them, but his public work was growing upon him, and he could not devote to it the time necessary. He (Mr. Barclay) was not like Mr. Jones in the matter of prospective work. He thought there was great work for them in the future. There were many things which would press upon them, and he, as a member of the Executive, did not anticipate a very easy time. They must look forward to anything but a bed of roses if they intended to do their duty.

The adoption was then formally put and carried unanimously.

The Executive Committee as chosen and recommended by the General Committee meeting was also unanimously accepted.

Mr. URWICK then proposed a vote of thanks to the Executive Committee for past services, and

Mr. OWEN, in seconding it, expressed his approval of the work they had done.

Mr. THOMAS GREENISH (London) said he had but a very few remarks to make. Mr. Barclay had made a slight mistake. He had not resigned. His year of office had simply expired, and he asked to be given a little rest. The time taken up with his duties at the Pharmaceutical Council was very great. He considered that the Chemists and Druggists' Trade Association had attended well and fairly to their interests, and they ought to look forward and make an effort to obtain the support of every member of the trade, so that they might be a united body. He had no doubt from the committee they had named that their interests would be well attended to. He congratulated them on their position, and on the list of the Executive, and he had no doubt he should have to congratulate them, if they were spared to meet another year, upon their success.

Mr. URWICK moved the appointment of the Executive recommended by the General Committee.

This was seconded by Mr. ABRAHAM GREAVES and agreed to.

The meeting then proceeded to elect the officers for the ensuing year, and

The CHAIRMAN said with reference to himself he had considered it a great honour to occupy the position of President of the Association. But the time had now arrived when he must ask them to appoint a successor. (Cries of No, no.) Well there were circumstances which made it necessary, as he was leaving Leamington shortly. He had to ask them to release him from the office, although he resigned with great regret. They must have some one near Birmingham to attend to the duties.



Mr. T. W. HOLDSWORTH, Birmingham, Honorary Secretary, asked them to appoint some one else in his place—not that he objected to the work, but he thought it was not right that this office should remain too long in the hands of any one person.

Mr. BARCLAY urged that when they had got a gentleman who filled the post satisfactorily he should be kept.

The ballot for officers for the ensuing year was then announced as follows:—

*President*—Thomas Barclay (Birmingham).

*Vice-president*—Robert Hampson (London).

*Treasurer*—William Southall (Birmingham).

*Hon. Secretary*—T. W. Holdsworth (Birmingham).

Mr. THOMAS BARCLAY, on taking the chair as President for the ensuing year, said he felt the responsibility of the position very much. It was one that he had not sought. He felt the responsibility in regard to the trade generally and in regard to the Association. They held a very great power in their hands for good or evil. They might be of good service, or they might, by indiscreet action, do great harm. He was exceedingly anxious that the reins should be held by very firm hands. They had in their past President a gentleman who had been studiously careful of every word and every action. He had done his very utmost not only to steer the Association right, but also to advance the interests of his fellow-tradesmen, and he (the speaker) succeeded one whom he should endeavour to follow in that respect. He had been fearful that they would place him in that position. He would do his utmost to merit their confidence and to carry on successfully the work of their Association.

Mr. HAMPSON (Vice-president) thanked them most sincerely for the position in which he was placed. He hoped he should, at the end of his year of office, have done some good.

Mr. HOLDSWORTH (Hon. Secretary) also returned thanks for his re-election. It was an honorary office, for the bulk of the work fell upon their excellent Secretary, Mr. Haydon. He (the speaker) felt when the Association was started that it was what was wanted. They wanted a defence against encroachment and attack. The necessity for their existence remained. He begged to be allowed to move a vote of thanks to the Secretary. It was only fair to him that at that meeting there should be a hearty recognition of the services he had rendered to the Society. There were very few paid servants who threw into their work so much interest as he had done.

Mr. JERVIS seconded the vote as being merited by energy and unceasing effort for the good of the trade.

The vote was unanimously accorded, and Mr. Haydon returned thanks.

A vote of thanks to the Solicitor for his zeal and energy in the interests of the Association was then moved by Mr. JONES, seconded by Mr. CHURCHILL, supported by Mr. GREENISH, and adopted.

Mr. GLAISHER (Solicitor), responding, said the work of the Association to him had been very interesting, and it was gratifying to find that his labours were appreciated by them.

The CHAIRMAN then said the meeting was open to an expression of opinion on matters affecting the trade.

Mr. WARD said he would like to bring before the Executive the question of the vending of proprietary articles containing poisons included in the Pharmacy Act; he also meant homoeopathic medicines containing poison within the meaning of the Act. He felt that it was an injustice to the trade that any grocer or draper should be privileged to sell homoeopathic preparations containing poisons such as aconite, arsenicum, belladonna, &c. He hoped it would be looked at fairly. If the sale were to be permitted, it should be stated whether the articles contained the substances they were said to contain. He hoped the Council would fairly look into the matter, and try, by working hand-in-hand with the Pharmaceutical Society, if they could not decide whether it was legal or illegal.

Dr. SYMES thought there was some room for action in the interest of the trade with regard to patent medicines. They were aware that on the continent in the case of all patent proprietary medicines the formula had to be given on the

wrapper. He could not advise such a course as that in this country, yet he could not conceive that there would be any difficulty in representing to a Government legislating for the benefit of the people that it was for the interest of the public as much as for the chemist and druggist, that if patent medicines contained poison the fact should be stated on the label of each packet or parcel, and the nature and quantity of the poison so employed. If that were done he would then propose that the patent medicine stamp should not prevent the operation of the Pharmacy Act with regard to the sale of poisons; but it was first of all necessary to have a provision requiring the makers of patent medicines to state if they contained poisons. There was a case lately of a person asking for an ounce of laudanum in a grocer's shop, and being informed that the shopkeeper could not sell 1 ounce, but could sell 2 ounces; and it was supplied in a bottle covered by a patent medicine stamp for 8d. The stamp in that instance appeared to relieve her of all responsibility. But he doubted if it really did so. However, when the matter came before the magistrates the case was dismissed on the ground that the patent medicine stamp protected the seller. In cases of poisoning with any patent medicine a medical man had no idea when called in what poison had been used. He contended that patent medicines should only be sold by registered chemists and druggists, and it was necessary that they should get legislation, which would enable them to define what patent medicines contained.

Mr. HAMPSON believed that if the Pharmacy Act were looked fairly into it would be found to be strong enough to cover this question to a certain extent, and that they were under somewhat of a mistake in supposing that patent medicines were without the action of the Pharmacy Act. Of course this was a very wide subject. If they were to bring all patent medicines under the operation of the Pharmacy Act they would have to label every cough mixture "poison." For instance, most cough mixtures contained morphia or something of that kind. There were other things, such as strong liniments, which were already labelled "poison." They would have to face the matter in some form, but it was impossible for that meeting to arrive at any conclusion. They could merely complain that they were suffering from unfair competition in a manner they did not anticipate, and that the public were not protected, because aconite, chloral, and morphia, prussic acid, and almost every poison in the schedule could be had in the patent medicine form. It was a most difficult question. He had tried to fathom it, but must confess himself beaten. It appeared to him that the best way in dealing with patent medicines was to begin *de novo*. If they attempted to carry out the Pharmacy Act on the matter they would be landed in a dilemma.

The SECRETARY said, with regard to the sale of homoeopathic medicines, he some time ago made a special journey in the North of England, with the object of obtaining from a general dealer some homoeopathic preparations of poison. He asked for arsenicum and aconite tincture No. 1. The dealer told him that he did not keep No. 1 or No. 2, and he was supplied with No. 3. When that was placed in the hands of a competent analyst he reported that the tinctures contained no trace whatever of the active principle.

Mr. POLLARD thought the first of Dr. Symes' propositions seemed to obviate the second. If patent medicines containing poison were to have the quantity of poison stated on them, he did not see how the public would be more protected by buying them of a chemist than of a grocer. If the nature of the poison and the dose were stated, the Legislature would probably think the public were sufficiently protected. The extra protection in the case of chemists selling laudanum was this: that a chemist felt a certain responsibility; but would chemists accept the responsibility of selling these patent medicines made by proprietors who might be navvies, for there was a very popular patent medicine in his neighbourhood which was made by a navvy? If they were to move in that direction the Legislature would come to see that after all there was no necessity to restrict poisons to chemists, and that if they made it a general rule that the dose should be stated on the label, laudanum might even be sold by village hucksters, and they would lose rather than gain.

Mr. MACKENZIE (Edinburgh) hoped Mr. Symes would get on the Pharmaceutical Council and be able to carry out his views.



Mr. BARKER SMITH made some desultory remarks concerning co-operative stores, and was understood to move a resolution committing the Executive Council to a trial of the co-operative principle.

The motion fell through for want of a seconder.

Mr. HAFENDEN said it occurred to him that medical men frequently either put the acting ingredient in some unfamiliar name, or in some way concealed it from the patient, and it would perhaps be disadvantageous to the vendors or proprietors of patent medicines if they were stated to contain poison.

Mr. WHITFIELD (Scarborough) said there were two aspects to the question of patent medicines—the financial and the moral. As men of business they did their best to make a living and satisfy their consciences that they did their duty. But so long as the patent medicines brought in the orthodox 1s. 1½d. the moral aspect was in abeyance; but now that those medicines were being sold at 10½d. the moral consideration was revived. He thought many of them were ashamed of the patent medicine trade, and would be glad to give it up, and druggists had it in their power, by speaking to their customers, to largely discourage the sale.

Dr. SYMES said the dispensing of medicines would not be affected by his proposal, but whenever any real reform was to be brought about some vested interest would suffer. The patent medicine trade seemed to be drifting out of their hands, and they should, therefore, put forward some effort to save it.

Mr. URWICK pointed out that there was a fearful depression of trade, and urged that if they only had a little patience they would see the legitimate trade return to its regular channels. If the public wanted things well done they must not go to the stores; although in a way they were economical, they would be failures. Many of the stores were not answering at the present time. Their groceries were done at a loss of from 10 to 12 per cent., but they made it up by putting a large profit on wines.

Mr. MACKENZIE, following up the remarks of the last speaker, said he was assured that the weak point of the stores was that they had too great a variety of incongruous goods.

Mr. WHITTLE said they must take the thing as it was, and continue to sell patent medicines. If they gave them up the grocers would sell them. He advised chemists not to sell under price, and hoped to see a more friendly feeling in their Society towards the Pharmaceutical Society.

The CHAIRMAN said he was glad to have had such a free expression of opinion by gentlemen present, and they might be quite sure the Executive Council would give due regard to the several points brought forward. Some very excellent points had been made, and it was only at these large meetings that they could get such information as to the general feeling of the trade. He was glad to hear what had been said with regard to patent medicines. Of course, they would all remember that one of the planks of their platform was an amended Pharmacy Act to prevent the sale of poison by unregistered men under cover of the patent medicine stamp, and they might feel sure that that would not be neglected. As regarded the action of the Pharmaceutical Society, he was sure they were all delighted in the result. The Society had their heartiest sympathy in putting down co-operative trading. They were proud of their success, and hoped they would go forward with the appeal, and that the result would be to establish firmly the right of chemists to vend medicines.

A vote of thanks to the Chairman, proposed by Mr. Urwick, seconded by Mr. Westrup, and carried unanimously, terminated the proceedings.

**FUMIGATING PLANTS.**—Mr. George Wall, of the Peradeniya Botanic Gardens, Ceylon, has devised an ingenious method of fumigating coffee trees for the cure of the leaf disease. A paper umbrella, with a curtain hanging from it, is dropped over the tree, and fastened by the handle; a lighted sulphur fuse is then placed underneath, and it is said that the fumes are retained long enough to attack the spores of the fungus. Possibly the plan might be found useful for destroying by fumigation the parasites of other plants.

## The Pharmaceutical Society of Ireland.

### MEETING OF THE COUNCIL.

Wednesday, June 4, 1879.

**PRESENT:**—C. R. C. Tichborne, Ph.D., LL.D. (President), Dr. Aquilla Smith (Vice-president), Sir George Owens, M.D., Dr. Collins, Dr. Ryan, Dr. Whitaker (Belfast), Messrs. Bennett (Kingstown), Brunker, Harrington (Cork), Hayes, Holmes, Oldham, and Simpson.

The minutes of the meeting held on May 7 were read and confirmed.

Read a letter from Mr. H. Patton, of Omagh, requesting to be informed whether, on the termination of his apprenticeship, he could go into business as a chemist and druggist, and sell poisons (but not compound prescriptions) without passing an examination.

The Registrar was directed to refer him to the Pharmacy (Ireland) Act, and to state that his proposed course would be illegal.

The first and second Reports from the Committee on the Pharmacy (Ireland) Act, 1875 (of which copies had previously been sent to each member of Council), were now taken into consideration, clause by clause.

The following are the reports as amended by the Council:—

#### FIRST REPORT OF THE COMMITTEE ON THE PHARMACY ACT (IRELAND), 1875.

The Committee appointed to consider the Pharmacy Act for Ireland, and to report whether any, and if so what, changes should be made therein, having carefully considered the matter, and also having had before them the opinion given by Mr. Purcell, Q.C., on the questions submitted to him, are of opinion that it would be judicious for the Council at an early date to have the Act amended, in order to give power to them as follows:—

1st. The Council of this Society having decided to have but the one grade for the Compounding of Prescriptions, viz., that of Pharmaceutical Chemist—this Committee are of opinion that Clauses 15 and 18 should be repealed, and all other Clauses relating to the title of Chemists and Druggists be altered to agree therewith.

2nd. That all sellers (not otherwise qualified) of Poisons, or Poisonous Drugs, as contained in Schedules 1 and 2 of the "Sale of Poisons Act," be duly registered as Druggists.

3rd. To allow all persons at present actually engaged in the sale of Poisons, or Poisonous Drugs, on making a declaration to that effect, and giving reasonable proof thereof, to be registered on payment of a Fee not exceeding 3l. 3s., and that such persons shall be styled "Registered Druggists."

4th. That the Council shall have power to institute an Examination for those wishing to sell Poisons or Poisonous Drugs, and a Fee, not to exceed 3l. 3s., to be charged therefor; and that the names of the persons so examined shall be placed on the list of Registered Druggists.

5th. That a list of "Registered Druggists" for the Sale of Poisons shall be published from time to time by the Council of the Pharmaceutical Society, of all persons entitled to be placed thereon.

6th. That it shall be illegal for any person to sell Poisons or Poisonous Drugs, or to style himself a "Druggist," except he shall be so registered save and except he be a Qualified Medical Practitioner, or duly registered by the Pharmaceutical Society of Ireland, or otherwise exempt by the Pharmacy Act.

7th. That it shall be unlawful for any Registered Druggist to keep open shop for retailing, dispensing, or compounding Medical Prescriptions.

8th. That the penalties for infringement of this Act, and modes of recovering them, shall be the same as provided in the Pharmacy Act.

9th. That all Bye-laws or Rules for Registration and Examination shall be approved of by the Privy Council prior to their being put into force.

#### SECOND REPORT OF THE PHARMACY ACT COMMITTEE.

1. Be it enacted, that in reference to the Pharmacy (Ireland) Act (38 and 39 Vict., ch. 57), and more especially in reference to section 30 of said Act, the word *person* shall be held to mean and imply any association of persons, whether as a partnership, society, or company (limited or otherwise), of which one, or more, members shall not be qualified under the provisions of the said Act.

2. In clause 11, line 4, after "Society" read—

(Such day not to be later than the next monthly meeting after such vacancy has been signified to the said President.)

3. In clause 34, line 4, after "prison" insert, "or Poor Law Board."

Proposed by Mr. Brunker, seconded by Mr. Hayes, and resolved—

That the amendments to the Pharmacy Act adopted by the Council be drawn up in the form of an Act, to be submitted for consideration to the Society at the annual meeting to be held in October next, a copy being previously sent to each member.

Mr. Thomas Martin Keown, Dublin Street, Monaghan, who was duly proposed and seconded at the May meeting, was elected a member of the Society.

#### PHARMACEUTICAL SOCIETY'S DINNER.

THE above Society held what is intended to be its first annual dinner on Wednesday, June 4, at the Grosvenor Hotel, Dublin. There was a good attendance, including members from Cork, Belfast, Newry, Kingstown, Bray, &c. The chair was occupied by Dr. Tichborne, the President. The vice-chair was filled by Mr. J. G. Boileau. After the usual loyal toasts the President, on proposing "Success to the Pharmaceutical Society of Ireland," went into a short survey of what had been done since its commencement, and paid a high tribute to the assistance given by Sir Dominic Corrigan in the formation of the Society; and he congratulated the members on its satisfactory position financially and otherwise, and spoke of the good feeling existing towards it by the medical profession. Mr. J. G. Boileau, in proposing the health of the President, congratulated the Society on having so able a man as Dr. Tichborne as President. The next toast, "The Medical Profession," was ably responded to by Dr. Whitaker, of Belfast. Mr. Boileau proposed "The Pharmaceutical Society of Great Britain," and called upon Mr. Holmes to respond, who in reply said that he felt himself in a rather peculiar position—in a sense toasting himself. On behalf of the Pharmaceutical Society of Great Britain he thanked them for the cordial manner in which the toast had been received. It was well known that there was a little alarm in the ranks of the English Society on the formation of the Irish Society. Affairs, however, had smoothed down, but he thought the day far distant when there could be either union or reciprocity.

Mr. Simpson also responded. "Our Provincial Brethren" was responded to by Mr. Harrington, of Cork, who said there was one thing he wished to remark in reference to proposed legislation giving the Council power to grant a licence to certain persons to sell poisons, to be called "licensed druggists": he would suggest the term should be "licensed poisoners." "Our Junior Brethren" was responded to by Mr. Froedman. The President proposed the concluding toast, "To our next Merry Meeting," and the company separated at 11 o'clock, having spent a most pleasant evening.

Songs and recitations were interspersed with the toasts.

#### Metropolitan Reports.

**FIRE.**—On May 19 a fire broke out in the camphor refinery belonging to Mr. W. H. Atkinson, manufacturing chemist, Crown Street, Wyndham Road, Camberwell. It was caused by the vapour of the camphor coming in contact with a flame.

**PROFESSOR WANKLYN BEFORE THE QUEEN'S BENCH.**—On May 14 the case of Slater *v.* Wanklyn was argued at the Queen's Bench, before Mr. Justice Manisty and a common jury. It was an action for wrongful dismissal. The defendant is the Professor of Chemistry at St. George's Hospital, and in 1877 he was the proprietor of a laboratory in Charlotte Street, Fitzroy Square. In 1872 the plaintiff went to the defendant's laboratory, and in 1877 he was acting as assistant with a salary at the rate of 100*l.* a year. On October 31, 1877, the defendant gave the plaintiff notice to leave his employment summarily. The case for the defendant was that the plaintiff had disobeyed his orders, and that he had

communicated some of his secrets to a Dr. Fox, and it was stated that one of them appeared in a book published by Dr. Fox. Both Dr. Fox and the plaintiff denied that any of the defendant's secrets had been communicated by the plaintiff to Dr. Fox, and they and another chemist said that the process described in Dr. Fox's book, which, it was alleged, was one of the secrets which had been communicated, had been known to chemists for many years. The jury returned a verdict for the plaintiff—damages 33*l.* 6*s.* 8*d.*

**FRAUD ON MESSRS. RICHARDSON & CO., LEICESTER.**—On May 23 Dr. Sutton, *alias* Miller, was brought up under remand at Bow Street, charged with serious frauds. The defendant's swindling transactions had been most multitudinous and varied. The solicitor for the Treasury read letters in the defendant's handwriting, written upon the printed form used by him and signed "J. W. Miller, M.D.," ordering some hundreds of pills and packets of medicine, &c., from Messrs. Richardson & Co., wholesale chemists, of Leicester. The order was supplemented by requests for other goods, written on post-cards, and arriving on subsequent days, the defendant adding that he was anxious to have the goods direct from the manufacturers instead of through the London agents, as a guarantee of their being genuine. The goods were sent, but the money was never paid for them. It was a curious feature in the case that the firm received letters, about two years afterwards, in the same handwriting, cautioning them to beware of a man named Stafford (who had also obtained goods of them by fraud), and declaring that the latter was connected with a swindler using the name of "Miller." Some of these letters were signed "James Grayson, solicitor, 37 Hunter Street," who repeated that he had authority to prosecute the offenders, &c. Mr. Wontner called Mr. Driver, clerk to Messrs. Richardson, to prove the facts relative to the orders for goods and the receipt of the letters, &c., after which the defendant was again remanded.

**ANOTHER FRAUD ON MESSRS. RICHARDSON.**—At Clerkenwell Police Court on May 21, Samuel Sargent, 33, 16 Roden Street, Islington, traveller, was charged before Mr. Hosack, with forging the endorsement of a cheque for 9*l.* 10*s.*, and embezzling the proceeds. Mr. Owston, of Leicester, appeared on behalf of the prosecution. Evidence was given by Mr. G. F. Richardson, of the firm of Richardson & Lloyd, wholesale druggists and chemists, Leicester, from which it appeared that the prisoner was engaged by that firm until August last. His duties were to solicit orders in the suburbs of London, and to remit every Friday all payments that had been made on account of the firm. In consequence of irregularities which had occurred, instructions were given to the prisoner in February last to forward all cheques made payable to the firm direct to his employers, and to remit all moneys by Post-office orders. In July a cheque was paid to the prisoner by a Mr. Hargrave, a medicine vendor at Hammersmith, made payable to the order of Messrs. Richardson & Lloyd. The prisoner had forged their signature, and had obtained the proceeds of the cheque without any authority, and had not accounted for the amount in the weekly balance-sheet. Warrants were obtained for his arrest on the two charges of forgery and embezzlement, and executed by Police-sergeant Golding, G 25. When taken into custody the prisoner said he did not deny having had the money, but he had not had it with any felonious intention. Formal evidence having been given as to the payment of the cheque to the prisoner, he was committed for trial.

**A DOUBLE SUICIDE.**—On May 22 Mr. W. Carter held an inquiry at the Angel Tavern, High Street, South Lambeth, as to the death of Mrs. Emily Hannah Edwards, 30, of 55 Lambeth Walk, South Lambeth. Her husband, a chemist, carrying on business in Lambeth, left his home on the evening of May 17 and went to the Victoria Embankment, where he was found insensible shortly afterwards by the police. He was removed to Westminster Hospital, where he was found to be dead. He had received some distressing information relating to family affairs, and was believed to have poisoned himself. On the morning of May 20 the shop was not opened, and, between nine and ten o'clock, a Mr. Mills, accompanied by a Miss Lawrence and a boy named Clisby, obtained an entry by the back door leading into the washhouse. Mrs. Edwards was found upstairs, lying on her bed, quite dead, and a small tumbler containing strong poison



was on the mantelsheff. Her face was covered with a pocket-handkerchief. A post-mortem examination was made, and it was found that she had died from oxalic acid poisoning. It is alleged that the deceased had an excessive dread of appearing as a witness at the inquest on her husband. The jury returned a verdict "That the deceased committed suicide while in a state of mental derangement."

**ALLEGED ROBBERY FROM A PATENT MEDICINE WAREHOUSE.**—James Miles, a warehouseman, and Frederick Anderson, a packer, in the employment of Messrs Barclay & Sons, of Farringdon Street, were charged at the Guildhall, on Monday last, with stealing two dozen bottles of Eno's Fruit Salt. More parcels of the same preparation were found at Miles's house. The prisoners were remanded.

## Provincial Reports.

### ATTERCLIFFE.

**STEDMAN'S TEETHING POWDER.**—An inquest was held at Attercliffe on May 27 and 28, on the body of an infant named Malloy, aged four months. The mother had given it half a Stedman's teething powder, and finding that it produced no effect, gave it a whole one on the following day. The directions for use state that the dose for a child under six months of age is half a powder. The post-mortem examination revealed the fact that the child died from convulsions brought on by constipation, and that the teething powder had not affected it. Before this decision was reached, the Coroner had made the following remarks. He asked the mother why she could not be content with the old-fashioned medicines known to all mothers, such as senna and castor-oil, instead of resorting to things she knew nothing about, which must either be of no good at all, or tremendously strong medicines, for a whole powder would not fill a gun-cap. . . . The powders had been given in a reckless manner, but he did not think the woman meant to do any harm to her child. She had not the slightest idea as to the composition of the powders, nor had he himself. They might be rank poison, or harmless quack medicines, or really good remedies, for anything he knew; but all that would be cleared up after the post-mortem examination had been made. Mr. George Shaw, the surgeon called to see the child, telegraphed to Mr. Stedman, asking if a whole powder could kill a child six months old. Mr. Stedman's reply was:—"No, it's utterly impossible; were they Steedman's powders?—*Post hoc, sed non propter.* Steedman's powders contain morphia, which is altogether wanting in Stedman's."

### BILSTON.

**UNSTAMPED WEIGHTS.**—On May 27 Mr. Benjamin Had-dock, chemist, Great Bridge, Bilston, was fined 10s. and costs, for having unstamped weights in his possession.

### BIRMINGHAM.

**CAMOMILES IN TOBACCO.**—On May 29 at the Birmingham Police Court, Edward Wilkinson, wholesale tobacco dealer, was summoned by the Excise for selling a pound of cut tobacco which was adulterated. The tobacco was analysed at Somerset House. It contained only one-fifth tobacco, the remainder being camomile flowers, logwood, and liquorice. He was fined 50l. Three tobacconists were summoned for selling adulterated tobacco in the form of smoking mixture, which they purchased from Wilkinson. They were each fined 50l. A fortnight previously, at Gainsborough, Messrs. Anyan, grocers, tobacco dealers, &c., Church Street, were fined 50l. for having in their possession a quantity of tobacco which contained camomile flowers dyed with logwood and sweetened. The packets were labelled "New Smoking Mixture," and bore the address of Wilkinson & Co., Birmingham, the firm named above. The mixture in this case contained over 80 per cent. of tobacco.

**POISONING BY PRUSSIC ACID.**—On May 27, J. P. Jones, a traveller and collector, 84 Newhall Street, Birmingham, bought half-an-ounce of prussic acid of Mr. Humphrey, Bull Street. He went to the Albion Hotel, obtained permission

to lie down in the coffee-room, and was found shortly after apparently in a fit, with the prussic acid bottle empty by his side. Mr. Garner, surgeon, was called in, but Jones died soon after.

### BOSTON.

**ATTEMPTED POISONING BY VERMIN-KILLER.**—At the Boston Police Court on May 16, Joseph Robinson, labourer, was committed to prison in default of securities for good behaviour for attempting to poison himself with vermin-killer, purchased from Mr. Booker, chemist. An emetic, promptly administered, frustrated his attempt. It is to be noted that he took the powder in whiskey.

### BRISTOL.

**ATTEMPTED POISONING.**—On May 27 Leah Jane Bennett attempted to poison herself with oxalic acid, which she had purchased of Mr. Babb, chemist, 37 Milk Street. She was conveyed to the Infirmary too soon for fatal results to supervene.

### CARDIFF.

**ODD ATTEMPT TO POISON.**—On May 29 a servant bought the smallest quantity of rat poison she could have, of Mr. G. Jones, chemist, 226 Bute Street. She went out, gave it to a little girl named M'Cree, saying, "There, my little dear: there's something for you." The child did not take it, but ran into the house, and in about ten minutes Mr. Jones was interviewed by Mrs. M'Cree, and, fortunately, was able to identify the packet as the one he had just sold. The police were at once informed of the matter.

### DARLINGTON.

**POISONED BY ROOTS.**—Thomas Robert Noddings, five years old, of Darlington, was poisoned last month by eating some poisonous root in mistake for sour dockens, *i.e.*, sheep's sorrel. He was attended by Dr. Eastwood, but died 18 hours after eating the poison.

### GLASGOW.

**CHEMISTS AND DRUGGISTS' ASSOCIATION.**—The last business meeting of the Association was held in Anderson's College on June 5, at 9 P.M., Mr. Alex. Kinninmont, F.C.S., President, in the chair. The Secretary, Mr. Hicks, read the minutes of the previous meeting, and the Treasurer, Mr. J. A. Clarke, gave his financial statement, which showed a balance of cash on hand from the session 1878-79 now ended. The President then reviewed the past session, which, he said, had been none of the brightest; we were not, however, alone in this condition, for throughout the country general depression had been the rule, therefore it was extremely satisfactory to know that although the membership had fallen off considerably, yet by economy a surplus over expenditure had been maintained, and as the Library Fund had also increased by donations the Council would be able to add by next session those books chosen by the members. After the President's remarks the following gentlemen were elected office-bearers for session 1879-80:—Mr. Alex. Kinninmont, F.C.S., President; Mr. Robert Brodie, Vice-president (*vice* Mr. J. M. Fairlie, resigned); Mr. John C. Hunter, Secretary (*vice* Mr. Hicks, resigned); Mr. Hicks, Treasurer (*vice* Mr. Joseph A. Clarke, resigned); Mr. Walker, Librarian; Members of Council, Messrs. Daniel Frazer, Thomas Davidson, John Currie, sen., R. C. Rait, J. C. Steel, Joseph A. Clark, William Weir, M. Simpson, John Foster, J. W. Pettigrew, Mr. Paul, John Fenwick; Auditors, Mr. Robert M'Adam, Mr. Archibald Paterson. Mr. John Currie, sen., moved a vote of thanks, which was heartily awarded, to the President, Secretary, and Treasurer for their services during the session.

### HALES OWEN.

**BREACH OF THE PHARMACY ACT.**—At Hales Owen Police Court on June 3, Emily Eliza Adam, chemist, Hagley Street, Hales Owen (not on the register), was charged with selling to Eliza Rudge certain poison, *viz.*, a preparation of opium, without labelling it as a poison. Mrs. Rudge purchased a pennyworth of mixture from defendant's shop on April 1. She gave it to her son, and it caused his death. Defendant pleaded guilty, and was fined 50s. and costs.

## HUDDERSFIELD.

**SUICIDE.**—On May 19, at Marsden, near Huddersfield, William John Pinnock committed suicide. His habits were irregular, his health broken, and his spirits low. He called his landlady into his room, told her that he had just taken prussic acid, and was about to take strychnine. He did this, and died in a few minutes. Verdict, "Temporary insanity."

## MANCHESTER.

**UNUSUAL POISONING CASE.**—Luke Starkie, aged 56, sexton of Christ Church, was the subject of an inquest on May 24 and 27, at Bradford, near Manchester. On February 19, while suffering great agony from *tic-doloureux*, he went to a shelf in his house, took down a bottle of hydrochloric acid, and drank from it. He had been in the habit of taking tincture of iron, but always mixed in a cup. It is not known why he went to the bottle, and it is believed that he was ignorant of its contents. The hydrochloric acid immediately caused vomiting. He was placed under the care of Dr. Royle, who treated him almost up to the time of his death, the cause of which was starvation, brought on by the contraction of the gullet from the effects of the acid, which prevented him from taking food. Verdict, "Accidental death."

**POISONING WITH POTASSIUM BICHROMATE.**—An inquest was held at Manchester on May 21 on the body of James Edward Lewington, aged two-and-a-half. On May 17 the child had found some lumps of potassium bichromate among some rubbish which had been swept from the premises of a Mr. Cowell, French polisher. The child sucked one of the lumps, and was immediately seized with pains in the stomach, and ran home vomiting excessively. Remedies were administered, but the child died on May 19. Verdict, "Accidental death."

## NOTTINGHAM.

**NOTTINGHAM AND NOTES CHEMISTS' ASSOCIATION.**—The annual meeting of this Association was held on May 28 under the presidency of Mr. R. FitzHugh, F.C.S. The report of the Council was read by the Hon. Secretary, Mr. R. Jackson. It showed that the Society was in a prosperous state, the number of members being 59, with 26 associates, and the balance in the hands of the Treasurer being 51*l.* 4*s.* 11*d.* After some discussion on the report, the following officers were elected for the ensuing year:—President, Mr. R. FitzHugh, F.C.S.; Vice-president, Mr. F. White; Treasurer, Mr. J. Rayner; Hon. Secretary, Mr. R. Jackson; Council, Messrs. Bolton, S. Fletcher, Humphreys, Parker, Smith, Warriner, W. Widdowson, and Wilford, and the meeting terminated with a vote of thanks to the officers and council for their past services.

## OLDBURY.

**FIRE.**—On May 23 a fire occurred at Messrs. Chance's Alkali Works, which caused a loss of about 600*l.*, fully covered by insurance. About one o'clock flames were observed in a shed stored with wooden staves and headings. Abundance of water and assistance was at hand, so the fire was confined to the block, which, however, was entirely destroyed. There are 450 hands fully employed at the works. Business was not interrupted by the fire.

## ROTHERHAM.

**THE AFFAIRS OF BEATSON & MYCOCK.**—On May 27 Mr. Mycock obtained from the Court of Common Pleas an order that 100*l.* paid into Court on a previous occasion should be refunded to him. On May 22 the Judge of the Sheffield Bankruptcy Court dismissed two debtors' summonses, taken out against Beatson & Mycock to recover 14,000*l.*, the amount of a bill of sale signed "William Beatson." Under circumstances already narrated, Beatson had allowed judgment to go by default, but an order had been given suspending judgment till the result of Mycock's appeal to the Common Pleas Division was known. This had been given in Mycock's favour, but a further appeal to the House of Lords was pending, so the order as to costs was stayed until after the decision was given.

## SHEFFIELD.

**BLOOD-POISONING (!)**—The *Sheffield Daily Telegraph* reports that an inquest was held at Ilkeston on April 24, on a boy named Mark Beardsley. "Dr. Wood deposed that he attended deceased, but was only called in on the day preceding his death. He saw the boy twice when alive. In his opinion the boy died from blood-poisoning, caused by inhaling lead poison whilst in the newly-painted rooms of the house. The verdict was returned in accordance with this evidence." We do not wish to discredit Dr. Wood's statement on such a meagre report as this, but we would point out that no attempt is made to substantiate his opinion, and that recent experiments have proved that lead is *not* present in the air of newly-painted places. Indeed, it is difficult to imagine how the very solid carbonate can possibly volatilise; while the oil it is mixed with entirely prevents its being rubbed off as dust.

**LIGHT WEIGHTS.**—On May 26, W. R. Hartley, druggist, Neepsend Lane, was fined 10*s.* and costs for having in his possession three 1 lb. weights light and unstamped.

**UNLICENSED PRACTITIONERS—COLLAPSE OF A PROSECUTION.**—On May 17 the summonses against Nathaniel Firth, Westgate; William Cole, Manchester Road, and James Balmforth, Longcroft Place, for styling themselves doctors without having certificates or being registered, were brought under the notice of the magistrates at Sheffield. The Chief Constable said these cases had been standing over two years; one of the witnesses was dead, others had removed, a portion of the medicine seized had evaporated, and therefore he thought they had better withdraw the summonses. The magistrates' clerk said that one defendant was heavily fined, he had appealed, and the summonses against the others were held over pending the appeal. The latter had, however, come to an untimely end by the defendant being sent to penal servitude, and therefore there was an end of the whole affair. The summonses were then withdrawn.

MR. HENRY CLIFTON SORBY, of Sheffield, the local secretary for the coming meeting of the British Association, has had the honorary degree of D.C.L. conferred upon him by the University of Cambridge. Perhaps the most widely known of his researches are those on the colouring matters of plants. The *Sheffield and Rotherham Independent*, in announcing this event, states that one of his compeers in the title is Professor Huxley, "the famous author of 'The Origin of Species'!" Dr. Huxley's fame requires no support from other men's work.

## ST. HELENS.

**CHEMISTS' ASSOCIATION.**—This association was formed by the chemists of the town for carrying out the object of the Pharmacy Act in the borough and neighbourhood, and also for mutual improvement. Alderman J. Harrison was unanimously elected as its first president; Mr. Thomas Sherlock, treasurer; Mr. George Webster, secretary. Council—Messrs. Cotton, McKenzie, Fox, Baker, Dixon, Webster, Harrison, and Sherlock. Rules for the conducting of the business of the Association were proposed and carried. The ordinary meetings will be held on the last Thursday of every month, for business, experiments, lectures, &c. The annual meeting will take place on October 2.

## SOUTHPORT.

**SUICIDE OF A COMMERCIAL TRAVELLER.**—Mr. W. G. Nicholson, a traveller in the employment of Messrs. Bourne & Taylor, of London, who resided at Manchester, but had been staying at Southport for a few days, committed suicide on Sunday, June 1. On the Saturday night he went to bed about 10 o'clock. About 5 o'clock on Sunday morning moaning was heard in the deceased's bedroom, and the landlady was informed of the fact. The bedroom door was broken open, and deceased was found lying on his back apparently in great pain. When asked if anything could be done for him, he cried out that he would give all he had for a drop of water, but on bringing it near to his mouth his shrieks were heartrending; he could not touch it. A doctor was soon in attendance, but could do nothing for him; he expired in dreadful agony about half-an-hour afterwards. A paper labelled "Vernin-poison" was found in the wash-



hand basin, and in deceased's pockets were found two other packets, which he had received as samples from a customer. While staying at the hotel he was in good health, but in a desponding condition. The inquest was held on Tuesday, when a verdict was given that deceased had committed suicide, but that there was no evidence to show the state of his mind at the time. Mr. Nicholson was a member of the late firm of Tomlinson, Nicholson & Morris, of Manchester. At the dissolution he seems to have been liable for the debts of the firm. When he entered the service of the firm he represented that he was in great pecuniary difficulties. His creditors had of late become very pressing in their demands. He was of a quiet disposition, and kept his troubles to himself; had it been otherwise many friends would have gladly helped him.

#### SPALDING.

**BREACH OF THE PHARMACY ACT.**—At the Spalding Petty Sessions on May 20, James Best, of Holbeach, chemist, was fined 3*l.* and costs for unlawfully omitting to make an entry of a sale of a certain poison, to wit, Battle's vermin-killer, before delivering the same to purchaser, on the 17th ult.

#### STOCKTON.

**—SPIRIT OF NITRE AND CREAM OF TARTAR.—EXTRAORDINARY DEFENCE.**—The *Analyst* reports the following cases:—“John Pennock, grocer, of Norton, was charged at the County Petty Sessions at Stockton, with selling adulterated spirits of nitre and cream of tartar. Mr. C. H. Archer, of Stockton, defended. Supt. Bell, inspector under the Act, stated that on February 4 he purchased 6 oz. of spirits of sweet nitre at the defendant's shop. He told the defendant it was for the purposes of analysis. He divided it into three portions, one of which he gave to the defendant, the second he retained, and the third he sent to Mr. Edger, of Newcastle, the county analyst, who certified it to contain 25 per cent. more water than genuine nitre contained. There was a fair proportion of nitrous ether. On the same day he purchased 4 oz. of cream of tartar, and the same process as mentioned in the first case was gone through. Mr. Edger certified the article to contain an excess of tartrate of lime—tartrate of lime, 8.5 per cent.; sand, 1.2 per cent.; sulphate of baryta, 17 per cent. He produced the analyst's certificate in each case. Mr. Archer said that in the first case his defence was that although the nitre was of inferior quality it was a commercial article, and of the quality usually sold. The first quality of nitre was seldom produced, the second was usually sold in town, and the third was generally sold in the country for cattle. Mr. Bell paid for an inferior article, and he was entitled to no better quality than he got. Mere inferiority was no ground on which to convict a man under the Act, and he therefore asked the Bench to dismiss his client. As to the cream of tartar, the tartrate of lime was left in through the mode of production; and the article, like the nitre, was sold precisely as it was got in the first instance. Mr. Dodgson, of the firm of Mandale, Dodgson & Co., bore out Mr. Archer's remarks as to the nitre, and added that people objected so much to paying for a superior quality that it was seldom offered; cream of tartar, he explained, was produced from the crust of wine. The crust of red wine was cleared by means of white clay, and there usually remained a certain amount of tartrate of lime, and not infrequently a small quantity of the clay. He supplied the defendant with the nitre and the cream of tartar. Supt. Bell: And of course you are consequently anxious that there should be no conviction. The Bench said they were satisfied that there had been an infringement of the Act, but it was not a serious one. They fined the defendant 1*s.* and costs in each case.—J. Clay, general dealer, of Norton, was also charged with selling adulterated nitre. Supt. Bell stated that in this case the analyst had certified the sample to contain 24 per cent. more water than was contained in genuine nitre. Cream of tartar purchased at the defendant's was found to be much better than that sold by Mr. Pennock; it was nearly pure, and a summons had, therefore, not been taken out. The defendant said he sold the nitre exactly as he got it from the wholesale grocers. The Bench: We fine you 1*s.* and costs. You must not sell any more of this unless you tell people what it is.” If this report is correct, the plea urged by the defence is the most astounding we have yet met with. We need hardly remind our readers that cream of tartar is

made by dissolving argol, or “wine crust,” in hot water, precipitating the colouring matter with about 5 per cent. of pipeclay, filtering the solution while still hot, and crystallising. When clay is present in the finished product it must have been added, intentionally or accidentally; and the clay certainly would never account for 17 per cent. of sulphate of baryta.

#### STRATFORD-ON-AVON.

**PUBLIC ANALYST.**—Eighteen months ago Dr. Bostock Hill was appointed borough analyst for Stratford, but not a single sample has been submitted to him for analysis. In answer to a sharp inquiry from the Local Government Board, the Rural Sanitary Authorities of the Stratford Union stated that they had no reason to suspect that any adulterated articles of food or drink were sold in the district. The Central Board were not satisfied with the excuse, and on May 27 the local authorities commissioned the inspector to procure samples in the usual way.

#### TUXFORD (NOTTS).

ON May 14, about 11 A.M., the church steeple at Tuxford was struck by lightning, and the shock smashed several of the bottles in the shop of Mr. Edwin Reynolds, druggist.

#### WINTERTON (Lincs.).

AT THE WINTERTON PETTY SESSIONS on May 3, Charles Cross, druggist, was fined 10*s.* and 11*s.* 6*d.* costs for being drunk on April 24 on licensed premises at the Cross Keys inn.

#### DISEASES OF CHILDREN.

(Continued.)

**WORMS** may prove a source of great annoyance and even danger when they give rise to reflex convulsions, which is not infrequently the case. The small white thread-worm (*Ascaris*, or *Oxyuris vermicularis*) is most commonly met with; after a stool large numbers will often be seen writhing about, or they may be seen on a careful examination of the lower part of the bowel. They give rise to very great irritation, and cause the child to be constantly scratching the anus, and after becoming warm in bed the itching is often aggravated, so that it may interfere with sleep. As these creatures inhabit the lower part of the bowel the readiest way of cure is to use some injection. An aperient powder may first be given, so as to clear the bowels, in order that the enema may act more directly. The following forms are all useful. Common salt dissolved in water or infusion of quassia (5*j.* to 0*j.*); tincture of perchloride of iron in either of the last-mentioned diluents, and in the same proportions: decoction of oak bark is also most useful. These injections should be retained for about ten minutes or a quarter of an hour, so as to act thoroughly, and afterwards the utmost cleanliness observed, the parts being well washed with cold water and soap after every motion. Scratching the anus should be guarded against, as it is believed that in so doing some of the ova may get under the finger nails, and thus at meals or during eating may find their way back into the mouth, and so lead to fresh development.

The round worm (*Ascaris lumbricoides*) is also met with in children. It makes its abode in the small intestines, and may be discharged in the ordinary way per rectum, or may prove very troublesome by finding its way into other cavities, and give rise to various symptoms according to the part invaded. Thus such a worm may find its way into the stomach and be discharged by the mouth or through the nostrils, or even find its way into the windpipe, causing great distress and symptoms of grave danger. Failing to reach the stomach, the bile and pancreatic ducts may offer an outlet, and so this *ascaris* may be found in the gall bladder. In such cases jaundice may be produced by stoppage of the duct and retention of bile. In appearance an *Ascaris lumbricoides* very much resembles an ordinary earth-worm. It varies in length from 6 inches to 16 inches. Unlike the thread-worms, which usually exist in large numbers (hundreds or thousands), this form may exist singly, but usually there are several, and sometimes hundreds.

There is another form, *Trichocephalus dispar*, which is

generally found in the large intestine, but is much shorter than a lumbricoid, being only 1 inch to 2 inches in length, and has its anterior extremity hair-like, whence its ordinary name, hair-headed or whip worm. It is said not to give rise to any symptoms.

These worms give rise to general symptoms, such as more or less wasting, debility, fretfulness, and pallor; to local symptoms, such as intense itching about anus, with scratching, which sooner or later gives rise to excoriations, which make the original irritation much worse.

Amongst the reflex phenomena caused by the local mischief are scratching the nose, convulsions, squinting, grinding of teeth during sleep, twitching of limbs, and even chorea.

When worms are suspected, a most careful examination of all stools must be made, and continued for some time, and an aperient powder may be given now and then to assist in dislodging the offenders.

The best remedy for the round worms is *santonin*. To begin with, give some aperient to thoroughly empty the bowels, and feed on liquids for some hours previously. This may be done over-night, and after a free purging give a dose varying from one to three or four grains, according to age.

Tapeworm is generally found in adults, and so need not be considered here. The three forms we have already considered belong to the sub-kingdom *Annuloida*, the distinguishing feature of which is the possession of a set of canals, which constitute the so-called "water-vascular system," and differ from the vessels of all other animals. They are included in the order *Nematoidea* (*νημα*, thread; *ειδος*, form), so called from the peculiar shape. Dr. Roberts, in his "Handbook of Medicine," thus speaks of their development:—"It seems tolerably certain that no intestinal worm develops there directly from an ovum deposited by a previous tenant, but that this must be first discharged and undergo metamorphosis, being afterwards conveyed, by some means, through the mouth into the alimentary canal; in a certain stage of development, and when it reaches its peculiar habitat, it grows into the adult animal. As regards the development of the nematodes, an embryo forms in each ovum after its discharge in the stools, or, in the case of the thread-worms, even while in the intestines; no further change occurs while the ovum is outside, though it may retain its vitality for a long period. In this condition it is supposed to enter the alimentary canal in various ways, such as by water, vegetables, fruit, or impure starchy substances."

In the nematodes the sexes are quite distinct, and the order includes, besides the worms already mentioned, the Guinea-worm and *Trichina spiralis*. By way of prevention, all stools suspected of containing ova should be destroyed, whilst all fruit, vegetables, &c., should be thoroughly washed, and all articles requiring cooking should be well boiled. Water should always be filtered, and if strongly suspected, boiled previously.

Young children are very subject to enlarged glands, which are often due to scrofula. When so, other signs of this condition will usually be present, such as short, thick-set, and heavy body, face plain, tumid-looking neck, expanded and thick ala nasi, low forehead, large upper lip, and dull pasty complexion (Jenner). Such children are generally deficient in mental power, and show a great tendency to eruptions of an ulcerative character, and very difficult to heal. The glands usually enlarged are those in the cervical region, in front of a line drawn from the opening of the ear canal to the shoulder. The best treatment is a properly-regulated diet, of nutritious and easily-digestible food, such being an important item; iron, quinine, the various phosphates, or syrups of the iodides. The chemical food is a very good form. Externally the use of iodide of lead or potassium ointment, or the painting of iodine. Plenty of fresh air and daily ablutions all over the body, with warm clothing.

There are also a set of glands at the back of the neck, behind the line before mentioned; these scarcely ever enlarge from the cause last mentioned, but invariably from the presence of living organisms in the hair, and this is an important practical point. Whenever a child is seen with large and painful glands at the back of the neck careful examination will at once reveal either the living creatures or a plentiful supply of nits. Plenty of soap and water with white precipitate ointment, and an occasional sponging over with diluted acetic acid in order to dissolve the nits, will effect a very satisfactory cure.

Whilst on this point the occurrence of ringworm may be noticed, as it is so disfiguring, and people are always so anxious to get rid of it at once. It is very prevalent in large schools where sufficient care is not bestowed on personal cleanliness, and here, as in other circumstances, "one black sheep infects the flock."

The distinguishing feature of this disease is the gradually-spreading red circle, rapidly increasing in its whole circumference, whilst the centre remains pale or slightly discoloured, with numerous small scales. It may occur on the body, or on the hairy scalp. When in the latter situation, the hairs will be found much altered, being brittle, twisted, and broken off, the scalp being discoloured and scaly, the scales being fine and small. In such cases the hair should be freely cut away all round, so as to thoroughly expose the patch or patches; and, unless this be done, no remedy can be depended on. If the case is seen early, the next step should be to paint the part over with glacial acetic acid, care being taken not to apply it too freely, as in some cases it is apt to produce a peculiar honey-combed state of scalp, with subsequent ulceration. This will generally be sufficient to cure the disease, whether situated on the surface of the body or on the scalp; all that will be needful afterwards is to apply a little simple ointment. If in a more chronic state, as evidenced by absence of advancing red rings and the part covered with scales, the application of olive oil, well rubbed in, followed by one or two poultices to clear off all the scales, and the following ointment—Ung. hydrarg. ammon. chlor., ung. hydrarg. nit., and ung. zinci, in equal parts, will generally be followed by a cure. Dr. Tilbury Fox lays great stress on removing all diseased hairs in bad cases. When attacking the scalp, this disease goes by the name of *Tinea tonsurans*; when on the general surface, *Tinea circinata*; but both diseases are essentially the same, and are both due to the same parasite (*Tricophyton tonsurans*).

A very common ailment among unhealthy and not sufficiently cleanly children is eczema of the scalp and face, with enlargement of glands both in front and behind the neck.

There is much redness of the skin, at first merely red papules, then the surface weeps, and yellowish scabs are formed, which in the case of the scalp mat the hairs together; on the face in a later stage the skin will be reddened and cracked. In children who are strumous, pus is sometimes formed. There is usually much irritation, the child being restless and fretful. If strumous, cod-liver oil and steel wine will be of much use—an alterative powder given occasionally will also be found useful. In the early stage soothing and simple remedies are necessary, such as the application of sweet oil, zinc ointment; if much itching a lead lotion with glycerine. When on the scalp with hairs all matted, poultice in order to remove scabs, and combine this with free use of oil; when scabs are removed cut off the hair, and apply either zinc ointment or a calamine and oxide of zinc lotion with glycerine.

It is very important to bear in mind that the disease is generally due to bad management and want of cleanliness superadded to a strumous tendency, so that general treatment is necessary. It is also necessary to prevent the formation of scabs by free oiling, and absolute cleanliness in removing any that do form. Mothers, generally, go on applying layer after layer of ointment, which is again incrustated by scabs, so that the diseased skin itself is never acted on at all, and the disease goes on unchecked.

Small watery heads, looking like small blisters, often appear about the lips after exposure to a chill, and give rise to the local affection called *Herpes labialis*—its great importance, however, is derived from its frequent association with pneumonia. It needs no special treatment.

Scabies or itch, from the frequency with which it occurs, is most necessary to be recognised at once, and treated promptly. It is due to a parasite, the *Acarus scabiei*, the male being small and merely existing on the surface; but the female, after having been impregnated, burrows under the skin, giving rise to the little furrows so characteristic of the disease, with a slight elevation of a whitish colour at one end, where the acarus will be found. These canals or cuniculi are the diagnostic marks of the affection, and in adults are found most frequently between the fingers, and on the front of the wrists, the parasite preferring the thin skin. In young children who are being nursed the buttocks will often be



affected, the disease being transferred there from the hands of the nurse. The scratching gives rise to secondary results, such as excoriations, and these must not be mistaken for the primary disease. The itching is very great, and is apt to be worse at night.

The treatment should be first to break down and open all the vesicles under which the female acari are situated, and where they deposit their eggs—silver-sand will accomplish this. The patient just moistens his finger, dips it in the sand, and then rubs each vesicle so as to rupture it; then sulphur ointment should be freely applied, and this repeated for three days night and morning; then a good warm bath with plenty of soap, a complete change of clothes, the old ones being destroyed or exposed to a disinfecting-chamber; the bath should be continued for some days. It is important not to mistake for the disease what is really secondary irritation produced by remedies. M.R.C.S.

(To be concluded in the next.)

## PYROGENOUS PRODUCTS.

(A Paper read before the Chemists' Assistants' Association, 32a George St., Hanover Square, Jan. 10, 1879.)

BY R. H. PARKER.

**P**YROGENOUS substances, as the name indicates, are bodies produced by the action of fire, but as generally applied they are limited to such as possess more or less empyreumatic character. Directly or indirectly they are the products of destructive distillation which had better at once be defined. When a solid or liquid is subjected to heat in a retort it may be volatilised and condensed unchanged, as alcohol or camphor; if of heterogeneous composition, the volatile are separated from the fixed components, and if the former is a mixture of bodies of different boiling points, they may be separated by fractional distillation. If, however, the reciprocal attractive force of the atoms comprising the molecules of the body distilled is not powerful enough to maintain the molecular integrity of the substance at its boiling or subliming point, it succumbs to the antagonistic force of heat, and is split up or resolved into simpler and more stable combinations. This constitutes destructive distillation. The atmosphere in which the distillation takes place is frequently an important factor—thus glycerine in vacuo distils unchanged, but contact with the atmosphere at an elevated temperature very soon gives rise to the well-known vapour of acrolein. Admixture with some inert substance frequently modifies or completely alters the reaction, as in the production of phenyl hydride,  $C_6H_6$ , and phenylalcohol,  $C_6H_5HO$ , from benzoic and salicylic acids, the results being much better if the bodies are intimately mixed with calcium hydrate or fine sand. Formic acid also is much more readily prepared from oxalic acid if the latter be dissolved in glycerine.

**Destructive Distillation of Wood.**—Dry wood withstands a temperature of  $150^{\circ}C$ . without decomposition, which commences at  $280^{\circ}C$ . Above the latter temperature it is split up into gaseous, watery, and tarry or oily substances. The most oxygenated compounds appear first, gradually becoming richer in carbon till the latter element remains alone in the retort (excepting, of course, the mineral constituents). Light woods do not pay to distil, since they produce so large a proportion of gaseous products. Those chiefly used are pine and beech—the former giving a yield of 14 per cent. of tar from the stems, and 16 to 20 per cent. from the roots. Beech, and other dicotyledonous woods, give 10 per cent., while turf only produces 3 to 9 per cent. The most commonly occurring wood tar is Stockholm or Archangel tar, which is produced from pine wood in the following manner:—

The situation most favourable to the process is a forest near a marsh or bog, because the roots of the fir (from which tar is principally extracted, the trunk being used as timber) are always most productive in such places. A conical cavity is then made in the ground (generally on the side of a bank or sloping hill), and the roots of the fir, together with logs and billets of the same being neatly trussed in a stack of

the same conical shape, are let into the cavity. The whole is then covered with turf to prevent the volatile products from being dissipated, which, by means of a heavy wooden mallet and wooden stamper worked separately by two men, is beaten down and rendered as firm as possible above the wood. The stack of billets is then kindled, and a slow combustion of the fir takes place, as in working charcoal. During this combustion, the tar, &c., exudes, and a cast-iron pan being on the bottom of the funnel with a spout which projects through the side of the bank, barrels are placed beneath this spout to collect the fluid as it comes away. As fast as the barrels are filled they are bunged and made ready for immediate exportation.

The relation between the various products formed during this process is best seen by their arrangement in the tabular form.

### Products of Destructive Distillation of Wood.

Incondensable Gaseous Products	Liquid Products				Residue
	Watery	Tarry and Oily Matter, which, when Distilled, yields			
		Light	Heavy	Residue	
CO CO <sub>2</sub> CH <sub>4</sub> CH <sub>2</sub> H	H <sub>2</sub> C <sub>2</sub> H <sub>2</sub> O <sub>2</sub> CH <sub>3</sub> HO CH <sub>3</sub> C <sub>2</sub> H <sub>2</sub> O <sub>2</sub> C <sub>2</sub> H <sub>2</sub> O	Eupione C <sub>6</sub> H <sub>12</sub> Benzol C <sub>6</sub> H <sub>6</sub>	Creasote C <sub>10</sub> H <sub>16</sub> O <sub>2</sub> Paraffin C <sub>20</sub> H <sub>42</sub>	English Asphalt or Pitch	Charcoal

The liquid distillate separates into an aqueous and an oily or tarry portion. The former, somewhat purified, constitutes *Pyroligneous Acid*. It is known as the *Essence of Smoke* of commerce, and is the source of *acetic acid* and *acetates*, *methyl alcohol*, minor constituents being *acetic ether*, *acetone*, &c.

*Tar* owes its bitter taste to piccamar, and its medicinal qualities to creasote.

*Acetic Acid*.—One pound wood gives 6 or 7 ounces of acid (varying in strength from equivalent of 25 to 55 grains of  $K_2CO_3$  per ounce), and from 2 to 4 ounces of charcoal.

The tarry portion of the distillate constitutes *Wood Tar*, the *Pix liquida* B.P., a bituminous liquid, sp. gr. 1.06, thick and granular. The chief constituents of wood tar are:—Pyrocatechin (the granular portion), eupione, paraffin, capnon, piccamar, pittical, benzol, and creasote.

Treated with water, a small proportion dissolves, including the pyrocatechin. The solution is light brown, which deepens by age, and constitutes *Eau de Goudron*, or tar water. Tar is soluble in ether, oils, and alcohol. Solution in the latter menstruum forms *Liquor Carbonis detergens*.

**Distillation of Wood Tar.**—The residue after the distillation of tar is pitch, and consists of pyretin, with a little pine resin. The distillation is divided by the aqueous distillate into *Light Oil of Tar* and *Heavy Oil of Tar*. The light oil when rectified is colourless, and constitutes *Oleum Picis Rect.* of commerce. It consists chiefly of eupione, with a little benzol, acetone, and methyl acetate. The heavy oil is a blackish brown, rather thin liquid, of disagreeable tarry odour, known in commerce as *Spirit of Tar*, used largely for footrot in sheep, ferrets, &c., and in veterinary surgery. It consists of creasote, paraffin, chrysene, pyrene, &c.

*Eupione*,  $C_6H_{12}$ , sp. gr. .625 (paraffin ether made by Rew & Co., Regent Street, has a sp. gr. .624) is about the lightest liquid known (chief constituent of *Ol. Picis Rect.*), not affected by stronger acids or alkalis, is very limpid and volatile, B.P.  $100^{\circ}$ – $116^{\circ}F$ .

*Creasote* (from heavy oil of *Beechwood Tar*), a liquid of sp. gr. 1.065 and B.P.  $397^{\circ}F$ , is prepared as follows:—The heavy oil is saturated with  $Na_2CO_3$ ; a yellowish oil rises to the surface, is decanted, and subjected to fractional distillation. The heavier portion is heated with solution of potash, sp. gr. 1.12, in which creasote dissolves, and the hydrocarbons float. The alkaline liquid is boiled, filtered, and on addition of  $H_2SO_4$  creasote is liberated. It is again treated with  $KHO$ , boiled and set free by  $H_2SO_4$ . This is repeated until it dissolves without residue in  $KHO$ .

Finally it is distilled at  $397^{\circ}F$ . and dried over  $CaCl_2$ .

When pure it is a colourless liquid, even after exposure to the atmosphere and light.

Creasote is not a definite chemical compound, and its chemistry is not so well made out as might be desired. According to Ziemann and Mendelssohn ("Year Book," p. 78) its chief constituents are *creosol*, or para-hydroxylmeta-methoxyl-toluene, and *phlorol*, which is an oxyxylene. Guaiacol is mentioned by several authors, but this appears to be a compound of creosol,  $C_8H_{10}O_2$ , and its next lower homologue,  $C_7H_8O_2$ . To the latter compound only the name Guaiacol should be confined. Like ethylic, methylic alcohol, &c., metallic potassium displaces hydrogen from creasote; the salt formed is a crystalline compound,  $C_8H_9O_2 \cdot 2H_2O$ , which is decomposed by  $H_2SO_4$ , giving creosol  $C_8H_{10}O_2$ , having most of the characters of creasote and an aromatic odour recalling vanilla.

Creasote should be insoluble in an equal volume of glycerine, and in water to a greater extent than about  $\frac{1}{4}$  per cent.

A compound of creasote with potassium (made by adding an alcoholic solution of KHO to a mixture of creasote with half its volume of ether) has been recommended for use in medicine. This body is a white crystalline compound which polarizes light. It is soluble in alcohol, insoluble in ether, is decomposed by water with liberation of creosol. The specimen of creosol exhibited, although treated in this way only once, has a decidedly purer and more aromatic odour than commercial creasote. This creosolate of potassium, if such it may be called, certainly deserves careful investigation respecting its value as a therapeutical agent.

The *Paraffin* produced at the termination of the distillatory process is of the series  $C_nH_{2n+2}$ , usually of the formula  $C_{20}H_{42}$ , and is of course solid.

In the foregoing remarks on the distillation of wood, that of pine has been chiefly alluded to; it is interesting to note that this wood does not give creasote as a large constituent of the distillate, but for the production of this substance *Beech-wood* is chiefly employed. The tar from this wood is official in the Pharmacopœia of Holland.

The wood of *Juniperus Oxycedrus* when distilled gives the well-known tarry liquid *Huile de Cade*, or Oleum Juniperi Pyroligneosum. The interior reddish wood is used.

Its composition is analogous to that of wood-tar, but it lacks the granular constituent pyrocatechin: its odour is distinct and characteristic.

The inner bark of *Betula Alba* when subjected to a sort of "distillation per decensum," in an earthen pot with a hole at the base, gives a tarry liquid known as *Oleum Betula Alba*, having numerous synonyms:—*Oleum Russia*, *Oleum Rusci*, *Pir betulina*, &c. The odour of Russian leather is said to be due to the use of this tar during the dressing process, whence arises the first-mentioned synonyms: the resemblance of odour can only be detected when the merest trace of the tar is present.

#### Products of the Destructive Distillation of Coal.

Incondensable Gaseous Products	Liquid Products						Residue
	Aqueous	Tarry, yields on Distillation					
		Light Oils	Heavy or "Dead Oils "			Residue	
			Acid	Basic	Neutral		
Co Co <sub>2</sub> CH <sub>4</sub> CH <sub>2</sub> H H <sub>2</sub> S NH <sub>3</sub> <sup>4</sup>	Water with Ammonia and Sulphates in Solution	Naphtha Benzol, C <sub>8</sub> H <sub>10</sub> , yields Nitrobenzol, source of Aniline	Carbolic, C <sub>6</sub> H <sub>5</sub> HO, Cresylic, C <sub>6</sub> H <sub>4</sub> HO,	Picoline, C <sub>6</sub> H <sub>5</sub> N, Aniline, C <sub>6</sub> H <sub>5</sub> N, Chino-line	Naphthalene, Paranaphthalene, and numerous Solid and Liquid Hydrocarbons	Pitch	Coke

Reference to the accompanying table indicates a very close general relation to the products distilled from wood. The *Residue* in this case is coke, well known as gas-carbon. The *Gaseous Products* contain, in addition, NH<sub>3</sub> and H<sub>2</sub>S, produced from the sulphur and nitrogenous constituents of the coal,

these being absent from wood. The liquid distillate comprises two layers: first, the aqueous or ammoniacal liquor, consisting of ammonia carbonate, sulphuretted hydrogen, &c.; the lower layer of the distillate is *Coal-tar*, or *Gas-tar*. When coal is distilled at a low temperature the tar produced is lighter than water, and does not dry on exposure to the atmosphere; if, however, a higher degree of heat is used (as in coal-gas manufacture), the tar is heavier than water, and dries readily on exposure to the air.

This liquid is largely used as a preservative paint for wood exposed to constant moisture, for railing, ship-bottoms, &c. The composition of coal-tar is almost beyond enumeration, and is very variable. The chief are: Ammonia and numerous amines, benzene and its homologues, carbolic acid, naphthalene, anthracene, pitch.

One hundred parts of tar contain:—

	Boghead Coal	Cannel Coal	Newcastle Coal	Staffordshire Coal
Benzol .. ..	12	9	2	5
Carbolic acid ..	3	14	5	9
Heavy hydrocarbons	30	40	12	35
Paraffin .. ..	41	—	—	—
Naphthalene ..	—	15	58	22
Dry tar .. ..	14	22	23	29
Total .. ..	100	100	100	100

Coal-tar (sp. gr. of coal-tar is 1.15–1.2) is about the most remarkable by-product known. A short time since it was considered nearly useless, and difficulty was experienced in getting rid of it; but now it forms the basis of an enormous manufacturing industry (one ton of coal gives from 10 to 12 gals. of tar). To manipulate this mixture fractional distillation is resorted to. The first portion of the distillate is lighter than water, is known as *Light Oils*, and contains naphtha (coal-tar naphtha) and benzol. Next comes the *Heavy*, or *Dead Oil*, the components of, and products from which would fill a museum: the most prominent, or rather important, of which would be carbolic and cresylic acids, aniline and its analogues, naphthalene, anthracene, and paraffin. The residue in the retort is *Pitch*, which differs from the corresponding body obtained from wood in being odourless.

*Light Oils*.—This liquid, when redistilled, has sp. gr. about .910, and constitutes *Rough Naphtha*. Agitated with H<sub>2</sub>SO<sub>4</sub>, clear liquid removed and treated with KHO, gives *Coal-tar Naphtha*; if again treated with H<sub>2</sub>SO<sub>4</sub> and KHO, *Highly Rectified Coal-tar Naphtha*. It is a valuable solvent of caoutchouc, &c., a good medium for varnishes and paints, is used as an illuminating agent, and as a preservative of metallic K and Na.

*Pure Benzol* may be obtained by distilling benzoic acid (1) with calcium hydrate (three parts). The distillate is treated with solution of KHO, the benzol decanted, dried by means of CaCl<sub>2</sub>, and redistilled.

*Benzol*, C<sub>6</sub>H<sub>6</sub>, sp. gr. .850, B.P. 187° F., solidifies at 32° F., melts at 44°, is obtained from the foregoing liquid by fractional distillation, and if required pure by crystallisation at its freezing-point. Its uses are too well known to require mention. Treated with strong nitric acid, the interesting substance *Nitrobenzol* is formed (C<sub>6</sub>H<sub>5</sub>NO<sub>2</sub>), sp. gr. 1.209, B.P. 415° F., known as essence of mirbane, or artificial oil of bitter almonds, the odour of which it only partly imitates.

The *Heavy or Dead Oil* subjected to distillation gives an enormous number of products, which for purposes of study are best divided into *Acid*, *Basic*, and *Neutral* products.

In the first list comes that important body *Carbolic Acid*, or phenyl alcohol, C<sub>6</sub>H<sub>5</sub>HO, a crystalline body sp. gr. 1.065, melting-point 94°, B.P. 360° F.; when pure is not deliquescent, although stated in the B.P. to "readily absorb moisture on exposure to the air, and thus become liquefied." (A specimen which has been exposed to moist air for five or six days is still in dry crystals.) It is prepared by collecting the part of the distillate from the heavy oils which comes over between 300° and 400° F.; this is treated with CaH<sub>2</sub>O<sub>2</sub> and KHO; the crystalline deposit formed; is collected and dissolved in boiling water, and the clear aqueous solution decomposed by HCl; the acid liberated is washed and rectified over CaCl<sub>2</sub>. Carbolic acid may be prepared by distilling a mixture of equal parts of salicylic acid and powdered glass



or sand at a red heat, and salicylic acid may be prepared by the action of  $\text{CO}_2$  on carbolic acid saturated with  $\text{NaHO}$ . The red colour of carbolic acid is said to be due to rosolic acid,  $\text{C}_{12}\text{H}_{12}\text{O}_6$ , and at a more advanced age the brown colour is brunolic acid.

*Cresylic Acid*, or more correctly alcohol, is the next higher homologue to carbolic acid, viz.,  $\text{C}_8\text{H}_8\text{HO}$ , and its boiling-point is  $397^\circ \text{F}$ . It is a frequent component of impure phenyl alcohol.

The *Basic bodies* are obtained from the heavy oil by treating with  $\text{HCl}$ . The most important are *Picoline*, *Aniline*, and *Chinoline*.

*Picoline*,  $\text{C}_6\text{H}_7\text{N}$ , is a colourless extremely volatile liquid, B.P.  $278^\circ \text{F}$ , sp. gr. 0.955, mixes with water in all proportions, is fluid at  $0^\circ \text{F}$ . Its salts crystallize with difficulty, and are deliquescent.

*Aniline*,  $\text{C}_6\text{H}_5\text{N}$ , *Amidobenzene*, or *Phenylamine*,  $\text{C}_6\text{H}_5\text{NH}_2$ , sp. gr. 1.020, B.P.  $360^\circ \text{F}$ , may be prepared by distilling indigo with concentrated solution of  $\text{KHO}$ , or by reducing nitrobenzol by  $\text{H}_2\text{S}$ . It is very volatile. It differs from picoline in that its salts crystallize easily and are not deliquescent. They are apt to become rose-coloured if exposed, while damp, to the atmosphere. From aniline, compounds of most brilliant hues can be obtained, and by the combination of these almost any tint can be produced. Most of these are obtained by various stages of oxidation or reduction: to attempt to give even an outline of their preparation would be useless, since there are practical details upon which success depend, which cannot be laid down upon paper. The chief of these compounds are: *Aniline Purple*, *Roscin*, *Violet*, *Fuchsine* or *Majenta*, *Bleu de Paris*, *Aniline Green* or *Emeraldine*, and *Aniline Blue*.

*Chinoline*, the third basic constituent of the coal-tar distillate,  $\text{C}_8\text{H}_7\text{N}$ , has sp. gr. 1.081, and B.P.  $455^\circ$ . It bears some resemblance to aniline, and from it have been obtained *Violet Blue* and *Green* dyes; these, although as yet only found in the chemist's laboratory, promise to vie with aniline colour in point of economy and utility.

*Neutral Compounds*.—These are obtained after removal of the acid and basic constituents by  $\text{KHO}$  and  $\text{HCl}$ .

*Naphthalene*,  $\text{C}_{10}\text{H}_8$ , sp. gr. 1.95, is an extremely volatile solid, melting at  $176^\circ$  and B.P.  $420^\circ$ ; its odour is said to bear a resemblance to that of the narcissus.

*Paranaphthalen*, or *Anthracene*,  $\text{C}_{14}\text{H}_{10}$ , is a white crystalline body, melting at  $416^\circ$ ; separated from naphthalene by prolonged treatment with alcohol, which dissolves the latter, but leaves paranaphthalin. Anthracene is very inflammable. From anthracene is obtained alizarin,  $\text{C}_{14}\text{H}_8\text{O}_4$ , identical with one of the red pigments contained in madder. The process is to oxidise the anthracene to anthraquinone,  $\text{C}_{14}\text{H}_8\text{O}_2$ , convert this into dibromanthraquinone  $\text{C}_{14}\text{H}_6\text{Br}_2\text{O}_2$ , and to heat this compound with  $\text{KHO}$  or  $\text{NaHO}$ , yielding alizarin and bromide of the alkali used. This body, treated with excess of  $\text{Cl}$ , gives a crystalline paste, which, if washed with ether and treated with boiling benzol, gives a solution that, on spontaneous evaporation, deposits beautifully-formed rhombohedral crystals, often of large size, and resembling Iceland spar in the curious property of double refraction. The composition of this interesting substance is not yet made out.

*Paraffin*.—The solid paraffin of commerce is obtained in the distillation of Boghead cannel coal, and composes about 40 per cent. of the tar produced. Its characters are:—A white crystalline solid,  $\text{C}_{20}\text{H}_{42}$ , sp. gr. .798, melting at  $114^\circ \text{F}$ , insol. in  $\text{H}_2\text{O}$  and cold olive oil, soluble in hot oil, turpentine, ether, benzol, &c.

Closely allied with the tar just considered in origin, composition, and character, is the substance known in commerce as *Barbadoes Tar* or *Petroleum Barbadoense*. This is a "black liquid bitumen, exuding spontaneously from the earth," probably produced by the action of the earth's internal heat upon various organic substances, including coal at a considerable depth below the surface. In the same manner also are formed the various *Rock Oils*, the finer kinds of which are known as "naphtha" or "mineral naphtha," while the darker and less pure varieties are called "petroleum."

*Oil of Amber* is a product of the destructive distillation of amber. This resin powdered, mixed with an equal weight of sand and distilled, yields three products, viz.:—Succinic acid, a fetid liquor, and a volatile oil; the latter, when dis-

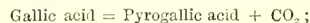
tilled with six volumes of water, gives *Ol. Succini Rect.* of commerce.

The old *Liquor Volatilis Cornu Cervi* might be well referred to here, taking its name from the cornu cervi or hartshorn, from which it was first produced by destructive distillation. A large quantity of ammonium carbonate is produced, part of which condenses as a solid in the neck of the retort, and was known as "salts of hartshorn"; the remainder, dissolved in the distilled aqueous liquid, when freed from oil and tarry matter, was known as "spirit of hartshorn." The liquid appearing under this title in modern days, however, is simply an aqueous solution, containing about 25 per cent. of ammonium carbonate.

In the manufacture of bone black (by the destructive distillation of all kinds of bones) a very fetid oily body is obtained as a by-product, and appears in commerce as *Oleum Animalis* or *Oleum Dippelii* (Dippel's oil). It is used largely in agricultural districts as a component in fly powders and sheep dips in order to prevent flies attacking these animals. If *Oleum Animalis* be slowly distilled, the first portion which comes over forms *Oleum Animalis Etherum*. This, I believe, is rarely used.

In the destructive distillation of such substances as horn, wool, bones, feathers, &c., the products usually are  $\text{NH}_3$ , methylamine, amylamine, pyrrol, &c., and various fetid combinations of sulphur, if that element is present.

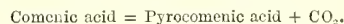
*Destructive Distillation of Acids*.—Many organic acids distilled alone simply lose  $\text{CO}_2$ , and frequently give a pyroacid thus:—



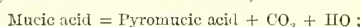
sometimes this occurs in two stages, thus:—



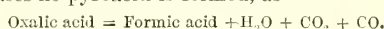
then,



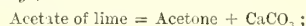
Occasionally water also is eliminated, thus:—



in some cases no pyroacid is formed, as



The addition of fine sand or other inert substances often materially assists or alters the reaction. By this means formic acid is much more readily prepared from oxalic. If distilled in combination with a base the case is different—a ketone being formed, e.g.,



if the acid has a high atomic weight, other bodies are also formed.

The *Destructive Distillation of Bases* is much simpler in presence of alkalis than above,  $\text{NH}_3$  and pyrrol are nearly always formed. The decompositions are usually too complex to admit of equational representation. The most common products are the alcohol bases.

It is worthy of note that sometimes curious similarity of products from exceedingly dissimilar bodies occur, thus:—

(1) *Gelatinous Tissue*, (2) *Shale Naphtha*, (3) *Coal Naphtha*, and (4) *Cinchonine*. Less similar bodies could scarcely be chosen; each when distilled yields *Pyrrol*, *Pyridine*, *Picoline*, *Lutidin*, and *Collidine*; in addition 1 and 4 give *Aniline*, 2 *Parvoline*, 3 and 4 *Chinoline* and *Lepidine*, and 3 *Cryptidine*.

Such substances as *Pyrogenous Oil of Aloes*, *Oleum Lateritium*, or oil of bricks, &c., being almost entirely out of date, are scarcely deserving of notice; they were produced by mixing the substances with olive oil or similar substance, and distilling.

A COMPREHENSIVE PRESCRIPTION.—James Hinton's passion was a single-eyed passion for wisdom and goodness of the highest kind. But he had a wife and family to feed. So money must be earned, and earn it he did, for he was the first aurist of his time. To be sure, all this money-seeking went so much against the grain that he now and then found it impossible to distract his mind from its habitual contemplation of the mysteries of the universe to the business of the moment, and one day, instead of writing on his patient's prescription that the ointment was every evening to be well rubbed in all round the ear, he wrote that it was "every evening to be well rubbed in, all round the world."—From "Fashions of the Day in Medicine and Science," by H. Strickland Constable.

## PHARMACY IN SPAIN.

THE following notes by one who has travelled through a considerable portion of Spain, and who has resided in various parts of that country for many years, as to the condition of pharmacy there may not be without interest to many of our readers. Probably less is known regarding pharmacy in that country than in any other continental State, but whether this be owing to a lack of interest in the country itself to attract tourists and others to its centres, or whether it is overshadowed by some of its greater neighbours, we need not stop to inquire. It certainly cannot be that pharmacy is of no interest in that country, or that it has no history to narrate, for, if we recollect aright, the first Pharmacopœia known in Europe was written by a pharmacist of Barcelona, while at the present time, though the profession may not be quite so advanced as in some other countries, there is in every direction a commendable progressive tendency. Moreover, our interest must be increased if we bear in mind that we are indebted to Spain for many of our medicines from both the vegetable and mineral kingdoms. For example, wine, olive oil, cork, almonds, oranges, lemons, raisins, lead, quicksilver, iron pyrites, silver ore and manganese ore, copper and copper ore, &c., figure largely in their exports; but these, as every candidate for the Minor in our own country knows, do not nearly exhaust the indebtedness of our Pharmacopœia to its materia medica.

As early as the beginning of the seventeenth century laws were issued regarding the examination of pharmacists, these at the same time conferring on them the exclusive right of making up and dispensing medicines, and also making it prohibitory under heavy penalties for physicians and surgeons to dispense. Half a century later pharmacy was still further elevated, and declared to be a profession and scientific art, and pharmacists were not permitted to engage in any business or calling which would distract their attention from the legitimate exercise of their profession. The compromise between the high professional claims of the seventeenth century and the money-making, matter-of-fact reality of the nineteenth is curiously illustrated in almost every town and city. The "botica" (medicine only) is still entirely separated from the "drogueria" (drugs and sundries), but they are generally separated by a door only, so that anyone can have their prescription dispensed at one establishment and walk out and enter the next door (same establishment) and get his—well, it may be, bottle of Eno's Fruit Salt. The pharmacists, as a rule, are a well-educated, superior class of men, and they have amongst them many of high repute as investigators and writers, finding expression in their various pharmaceutical journals as well as in their pharmaceutical conference ("Congreso Farmacutico Español"). The "Farmacopea Española" is, of course, their great directory, but probably it is not more universally used than the French Codex, which is also to be found on the desk of every pharmacist. The last (5th) edition of the "Farmacopea" was published in 1865, and probably a few excerpts from it may show the state of pharmacy in Spain better than any lengthened explanation. The following are the Spanish medical weights:—

Medicinal pound =	.. ..	12 onzas
" onza =	.. ..	8 dracmas
" dracma =	.. ..	3 escrúpulos
" escrúpulo ..	.. ..	24 granos

The medicinal pound =  $\frac{3}{4}$  Castilian pound = 345 grammes. The grano = the weight of a grain of barley of ordinary size.

*Acidum Cyanhydricum.*

10½ per cent. HCN. Sedative. Dose, 2 to 4 grains.

There is surely a mistake here either with the dose or the strength of the solution. Probably, however, the excitable and hot-blooded Spaniard may stand a more powerful sedative than the phlegmatic Briton.

*Acidum Sulphuricum Alcoholisatum.*

Sulphuric acid, 66° ..	.. ..	1 oz.
Alcohol, 90° ..	.. ..	3 oz.

Mix. Astringent and diuretic. Dose, 6 to 12 grains.

*Aqua ex Bañares.*

Sulphate of magnesia ..	.. ..	3 drachms
Tartar emetic ..	.. ..	1 grain
Sulphate of iron ..	.. ..	6 grains
Rochelle salts ..	.. ..	12 grains
Water ..	.. ..	4 lbs.

Dissolve the salts in the water and filter. Extemporaneous resolutive in infartos of the abdominal viscera, and laxative.

*Aqua Fagedanica.*

Corrosive sublimate ..	.. ..	1 scruple
Carbonate of potass ..	.. ..	1 drachm
Distilled water ..	.. ..	1 lb.

Triturate the salts in a glass mortar, and add the water little by little. It ought not to be filtered. Extemporaneous excitant and detergent: used specially in syphilitic ulcers.

*Aqua ex Seidlitz.*

Sulphate of magnesia ..	.. ..	6 drachms
Bicarbonate of soda ..	.. ..	2½ drachms
Water ..	.. ..	2 lbs.
Sulphuric acid, 66° ..	.. ..	1 drachm

Dissolve the sulphate of magnesia in the water; put the solution in a bottle, not filling it up further than the neck; add the sulphuric acid, and lastly the carbonate of soda, made previously into a small ball with mucilage. Cork the bottle, and secure immediately with a string. Resolutive and laxative. Dose, 4 to 8 oz.

*Aqua ex Seltz.*

Chloride of calcium ..	.. ..	6 grains
" magnesia ..	.. ..	5 grains
" soda ..	.. ..	20 grains
Carbonate of soda ..	.. ..	16 grains
Phosphate of soda ..	.. ..	1½ grain
Sulphate of soda ..	.. ..	1 grain
Distilled water ..	.. ..	20 oz.
Carbonic acid ..	.. ..	5 volumes

Dissolve the salts of soda in one part of the water, and the chlorides of calcium and magnesia in the other; mix the two liquids, and dissolve in it the carbonic acid by means of the proper apparatus, &c.

The next formula is a somewhat famous one, at least in so far as it is immensely popular, and although it may not be unknown to some we quote it in full.

*Emplastrum Ranarum Simplex.*

Live frogs ..	.. ..	12
Fresh root of Sambucus ebulus ..	.. ..	½ lb.
Lappa major ..	.. ..	½ lb.
Vinegar ..	.. ..	1 lb.
Water ..	.. ..	3 lbs.
Simple lead plaster ..	.. ..	6 lbs.
Yellow wax ..	.. ..	1 lb.
Pine turpentine ..	.. ..	½ oz.
Euphorbium, in powder ..	.. ..	3 drachms.

Macerate the frogs and the roots for two days with the vinegar and water, boil afterwards for an hour, run the liquid through a cloth, and evaporate on a water-bath to the consistence of a soft extract. Liquify apart the simple plaster, mix with it the previous extract, and continue heating so long as water is given off. Then incorporate the turpentine and wax; take the plaster from the fire, and when it is half cold add the euphorbium and reduce to medallions. Use: excitant and resolutive.

It is, however, probably in olea that the Spanish Pharmacopœia excels, these generally, though not always, corresponding to the linimenta of our own Pharmacopœia. There are oils prepared from the roots, leaves, flowers, &c., of plants, some of these being simple, such as those prepared by digesting the leaves of belladonna, hyosciamus, stramonium, &c., or the flowers of the white lily, camomile, hypericum, &c., or the roots of the althea, thapsia, &c., in olive oil. Others again are compound, such as the famous balsamum tranquillans (oleum stramouii compositum), which contains some 20 or more different herbs, all macerated in the oil, or the equally well-known friars' oil, oleum thapsiæ compositum. Of a different nature are the—

*Oleum Fructuum Lauri (Butyrum Lauri) and Oleum Nucis Moschatæ (Butyrum, N.M.)*

Both prepared after a similar method. The nutmegs, for example, are reduced to paste by beating in an iron mortar, previously heated; next add the fifth part of its weight of boiling water; envelope in a cloth, and express in a press



between hot iron plates; separate the product when cold and solidified from the water in which it swims; liquefy in a water bath, filter through paper in a double-walled funnel having hot water between; receive the product in bottles, which it is well to have filled and properly stoppered. For immediate use the oil is to be reduced to pastiles by placing the bottle in hot water till its contents are liquefied, and turning out into moulds of paper, tinplate, or porcelain. This oil is a type of several, being used both internally, and externally for rubbing.

The following is after our own nitrate of mercury ointment, and may contain a hint to some who have a difficulty with it.

*Oleum Oxygenatum ex Bañares.*

Pure mercury	..	..	..	..	..	1 oz.
Nitric acid, 35° B.	..	..	..	..	..	2 oz.
Olive oil	..	..	..	..	..	16 oz.

Dissolve the metal in the acid, and add the solution to the oil placed in a porcelain vessel. Expose to a gentle heat, stirring without ceasing, and when it assumes a dark yellow colour remove from the fire, and continue the stirring till by cooling it has acquired the consistency of butter.

There are two oils simple solutions, namely, *Oleum Phosphoratum*—1 drachm phosphorus to 5 oz. olive oil; and *Oleum Iodatum*—iodine, 1 scruple, to almond oil, 8 oz.

With the next, however, we must conclude our present notice.

*Oleum Scorpionum.*

Live scorpions	..	..	..	..	..	8 oz.
Olive oil	..	..	..	..	..	3 lbs.

Drawn the scorpions in the oil, add a little water, heat gently to evaporate the water, pass through a cloth, and filter through paper used for rubbing the hypogastric to promote the excretion of urine.

## TEMPERANCE BEVERAGES.

ON May 29 the British Medical Temperance Association sat down to a dinner at the Langham Hotel on the occasion of the third anniversary of the Association. From a druggist's point of view the drinks provided were the most interesting feature of the ceremony. They were very numerous, and have excited considerable attention. Dr. Norman Ker reports on them as follows:—

In the first place he certifies that they are unintoxicating. *Johnson's Zoedone*.—A sparkling, delicious, exhilarating drink, containing phosphates and iron. An excellent brain and nerve tonic. (Evans & Co., Wrexham.)

*Belben's Cyderine*.—As pleasant and refreshing as cyder, though unintoxicating. The aerated juice of apples. (R. B. Belben, Bournemouth.)

*Unfermented Wines*.—I. Frank Wright's, made from the finest grapes. No artificial colouring; these grapes have a red juice. Has been in great demand for many years. (Frank Wright, Kensington.)

II. *Bell & Co.'s Unfermented Port and Sherry*.—The port is remarkably good. (Bell & Co., Liverpool.)

III. *Meyerheim's*.—The pure inspissated juice of the grape. No artificial colouring, and no substance added foreign to the grapes. Pleasantly acid. (Moritz Meyerheim, Didsbury, Manchester.)

*Harriot's Sparkling Bine and Orange Bine*.—(Thomas Harriot, Wood Street, Westminster.)

*National Temperance Beverage Company's Malt Drinks*.—Free from alcohol, and with difficulty can be distinguished from beer and stout. Their aerated drinks are very fine, especially their champagne. (National Temperance Beverage Company, Mansfield Road, London, N.W.)

*Larmuth's Aerated Drinks and Hopade*.—Very good and pleasant.

*Wright's Fruit Essences*.—Exquisite. (Frank Wright, Kensington.)

*Bell's Liqueurs*.—Unintoxicating and very attractive. (Bell & Co., Liverpool.)

*Ginger Ale*.—Nothing can be finer. (Cantrell & Cochrane, Belfast.)

"A Medical Connoisseur" writes to the *Temperance Record* as follows:—"Everyone was struck with the variety and attractiveness of the liquids at the dinner at the Langham. By universal consent the palm was awarded to

zoedone, a sparkling, delicious, exhilarating drink, containing phosphates and iron, and an excellent brain and nerve tonic. The patentee is Mr. David Johnson, F.C.S., and the manufacturers are Evans & Co., Wrexham. Ice is a great improvement to zoedone, as it is to cyderine, the aerated juice of apples, a drink which is as pleasant and refreshing as cyder, without the latter's intoxicating properties. The manufacturer is R. H. Belben, of Bournemouth. The National Temperance Beverage Company, Mansfield Road, London, N.W., had a remarkable variety of hop drinks, well fitted to be used as substitutes for beer and stout. This company's aerated drinks were all excellent. Mr. Harriot, of Wood Street, Westminster, provided his very agreeable sparkling and orange wines. He has devoted great attention to the subject, and his success is worthy of record. Larmuth's hopades were well patronised and thoroughly appreciated. Bell & Co., Breck Road, Liverpool, shone by the richness and elegance of their French Imperial liqueurs, and their unfermented wines were pronounced very good. The unfermented wine made by Frank Wright, Kensington, is too well known and widely appreciated to need a single word of praise. Nothing can be purer or more inviting to the eye, the redness of the liquid being due, not to artificial colouring matter, but to the employment of grapes with a red juice. Yet another and new kind of unfermented wine was exhibited by Moritz Meyerheim, of Didsbury, Manchester. This is totally different, both in appearance and flavour, from either of the other unfermented wines. It is sweet and luscious, but has, withal, a pleasantly acid taste. It is the pure, inspissated juice of the grape, and is absolutely free from alcohol. A friend of ours, a non-abstainer, was quite delighted with it, as it reminded him of a wine he was, many years ago, very partial to in Malta. This is a new wine entirely, but will, we think, prove a very valuable and popular beverage." These articles are well worth the attention of chemists, and in almost any localities ought, if well worked, to add very largely to their returns.

## WASHING POWDERS.

HAGER (*Pharm. Centralhalle*) says: "The value of a soap is proportional to its richness in fatty acids. Good soaps contain 50, 60, and 70 per cent. of these. If the composition of the highly-advertised washing aids is regarded in the light of this fact, a new idea of their value and economy will be formed." He then gives the following analyses:—

The so-called "English Washing Crystal" is an impure, half-efflorescent crystallised soda, containing a large proportion of sodium sulphate and common salt.

Under the name of "Washing Crystals" simply a filtered solution of borax and soda has been introduced.

The "English Patent Cleansing Crystal Washing Powder" is a half-efflorescent soda, containing about 25 per cent. of Glauber's salts.

The "Washing and Cleansing Crystals" (Harper Twelve-trees & Sons) are pure crystallised soda, with 1 to 2 per cent. of borax.

Krimmelbein's "Wool-washing Composition" is a mixture of 35 parts of dried soda, 10 parts of soap-powder, and 10 parts of sal'ammoniac.

Ward's "Wool-washer" is a mixture of 90 parts of effloresced soda crystals, with 10 parts of soap-powder.

The "Universal Washing Powder" (Henkel's) is a water-glass containing soda, with a small percentage of tallow soap and starch-powder.

Hudson's "Soap Extract" is a mixture of crystallised soda and soda-soap, containing water (soap 14.3, anhydrous soda 30, and water 55).

A washing powder for the finest white linen is a powdery mixture of 90 parts of effloresced soda, with 10 parts of hyposulphite of soda and 2 parts of borax.

The so-called "Finest Brilliant Elastic Starch" is a mixture of about 7 to 8 parts of stearine with 100 parts of wheaten starch (melted stearin is mixed with about 15 times its weight of starch, and after cooling powdered and combined with the rest of the starch).

The "Berlin Prepared Brilliant Dressing Starch" is good wheaten starch mixed with 2 to 2½ per cent. of borax.

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2/9 " " 27 "	.. ..	24/- "	
4/6 " " 54 "	.. ..	42/- "	
11/- " " 216 "	.. ..	11/- net.	

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Loose, 5/6 per gross; in 1 doz. Coloured Boxes, Wrappers, &c.,  
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EXTRACTED. Carefully cleaned and ground so as to retain the natural  
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Quantities. Samples, Reports, and Analyses on application, post free.

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### UNGUENTUM PETROLEI. See page 67.

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**SANITAS.**—The fluid is colourless, non-poisonous, and agreeable; it is harmless to furniture and linen, and is "THE ENEMY OF DISEASE." "SANITAS" is a valuable Antiseptic and Disinfectant."—*Times*. "SANITAS" is first favourite among Disinfectants."—*Lancet*.

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SEE SEABURY & JOHNSON'S Advertisement of INDIA RUBBER POROUS AND SPREAD PLASTERS on page 103.

### HAWKER'S JUJUBES. See page 5.

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*Wholesale Agents to the Analysed Tea Association,*  
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### PURE COD LIVER OIL. See page 66.

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## EDITORIAL NOTES.

### PHARMACEUTICAL POLITICS.

THE breeze of gentle excitement which the month of May usually brings to pharmaceutical interests has this year passed over us without developing into a storm. The two societies which together represent the varied interests of the trade both had the pleasant duty of recording a legal victory of considerable importance. The Trade Association had repulsed the attack of the apothecaries, and the Pharmaceutical Council had secured a valuable decision from the Court of Queen's Bench in favour of the repression of the sale or dispensing of poisons by Corporations, a decision which we observe with pleasure has since been finally submitted to by the defendants. While we fully recognise the importance of the actions thus won by the Pharmaceutical Council, we are bound to discount in some degree the rather excessive amount of glory which the members of the Council are disposed to award to themselves as they con-



template their victory. The real truth is that the effort was made too late to win the best results. During the year 1873 we pressed the Council on four or five distinct occasions to prosecute the promoters of an establishment which was started in Oxford Street with the express object of supplying drugs and dispensing prescriptions. The Council had not the courage to commence the action, and the practice thus encouraged has since grown to serious proportions.

The election of Mr. Barclay to the Presidency of the Trade Association is only the barest compliment which could have been paid to that gentleman. It was his willingness and capacity for work which made the Association a possibility, and it has been to a large extent by the infusion into its counsels of his spirit that it has become a power. Mr. Jones retires from the presidential chair with the cordial respect of all who have come into contact with him. His leadership has been neither rash nor timid, but the three years which have passed since his election as the first President of the Association have fully justified not only the choice then made, but also the formation of the Association itself.

It is paradoxically true that the comparatively smooth waters into which the Trade Association has now floated are its greatest danger. A sufficiently large proportion of its members, recognising the good work which it has accomplished, and the necessity of readiness for prompt action when necessity arises, will, we have no doubt, continue in that bond of union which has compelled legislators, analysts, and apothecaries to regard the interests of chemists and druggists more respectfully than they ever did before. But there seems to be, unfortunately, among chemists a very large number, not unwilling to join in the shoutings of complaint or triumph, but quite content to leave the paying part of the business to those who choose to saddle themselves with it. It cannot be the fact that a good half of the chemists and druggists of England were indifferent to the attempt which was made by the Society of Apothecaries, or at least by an important section of that company, to stamp out the free exercise of their business by chemists and druggists. It is a fact that a body of medical men had banded themselves together with a distinct intention of crushing the rights of chemists in this respect; it is a fact that the letter of the law was several times declared to be in their favour; and yet it is also a fact that they have been ignominiously beaten, and that the exposure and public condemnation of their conduct have ensured the safety of the trade for the future. Finally, it is a fact, and not a pleasant one to record, that more than half of the chemists and druggists of this country have not contributed a single shilling towards the expenses attending the attainment of that object.

The recent election of the Pharmaceutical Council shows unmistakably the current of opinion among the members, or rather among those who take enough interest in the Society to exercise their right of voting. The place of honour is given to Mr. Churchill, of Birmingham, his connection with the Trade Association having evidently operated in his favour. On the other hand the late President is ominously low among the successful candidates, while Mr. Cracknell, whose vote was invariably given on the Tory side, is excluded altogether. Respect for the past services of his father has given Mr. Squire a seat, but no one knows what views he represents. The much larger number of votes polled by Messrs. Symes and Richardson, the other new Councillors, is evidence of the greater popularity of progressive politics. Notwithstanding this infusion of Liberalism, however, it is only persons of peculiarly robust faith who will anticipate a more vigorous policy from the Pharmaceutical Council. True to its reactionary instincts, the first act of the new Council was to

substitute in the Presidential chair for the timid Conservatism of Mr. John Williams the uncompromising Toryism of Mr. George Webb Sandford.

### A GRATEFUL PATIENT.

MR. WOMBWELL'S elephant "Lizzie" has sealed the verdict of the Westminster jury, and the unanimous approval of counter-prescribing by chemists and druggists, which was given by the voice of the country at the time of the Sheperley trial, in an emphatic and pleasing manner. We have ascertained that the curious facts here narrated are strictly true.

Wombwell's menagerie visited Tenbury on April 28, 1874, and "Lizzie," after a long walk, drank from a spring a quantity of cold water. She was much heated with the walk, and was soon afterwards attacked with a violent fit of gripes, which continued for some time. Mr. John Turley, a chemist, of Tenbury, who had acquired a special reputation for the treatment of animals, was sent for, and administered, with a tube, large doses of laudanum, aloes, asafoetida, turpentine, and sulphuric ether. He also gave clysters frequently. The second day she was very thirsty, and drank upwards of 10 gallons of linseed-tea, containing mashed potatoes and sugar. During the next two days she took nothing, and the medicine did not operate until the fourth day. Two quarts of liquid blister had also been applied to her side, and this seemed to give great relief.

The menagerie again visited Tenbury about the middle of last month, five years having elapsed. As the procession passed down the street the elephant recognised, at his shop door, her former doctor. With a refinement of feeling which does her infinite credit, she crossed the road and placed her trunk in Mr. Turley's hand, making a peculiar grunting noise as if she were pleased. Mr. Turley visited the exhibition, and was again greeted with every demonstration of affection, the embraces of "Lizzie" at first occasioning some alarm. The narrative is a very remarkable one, and is quite worthy of a place among the stories of animal intelligence which have been handed down to us from Androcles onwards.

### SUSPENDED ANIMATION.

ON May 26 nearly a column of the *Times* was devoted to an extract from the *Brisbane Courier* of January 11, which described in glowing terms a discovery alleged to have been made by a Signor Rotura. This gentleman asserts that he has discovered a South American vegetable poison named *woolara* [*ourari* or *curare*?] which has the power of perfectly suspending animation till another vegetable product obtained from an *astracharlis* [*astragalus*?] is administered. A most circumstantial account is given of some experiments which have been tried. Among others, we are told the woolara was injected into 14 sheep, 4 lambs, and 3 pigs, which were stacked in a heap in a freezing-chamber to prevent decomposition. They remained 19 days in the trance. A lamb was then taken out, immersed in warm water to raise the body to blood heat, and the antidote injected. Artificial respiration was resorted to, and in 10 minutes the animal was struggling to free itself, and when released skipped away as if nothing had happened. Signor Rotura has left Brisbane on a visit to South America to procure a large supply of the necessary drugs. On his return he proposes to suspend the animation of sheep, pack them in a refrigerating-steamer, and send them over to Europe to be revived and sold. We need hardly say that this story requires far more confirmation than it has yet received. Indeed, the *Times* itself published on June 3 an

article a column and a half long which committed it to nothing, while it insinuated that the affair might after all be a hoax; and rumour says that the *Brisbane Courier* has confessed that the report is a romance. The writer evidently forgot that the heart's action cannot be renewed if it is suspended beyond a certain limited time.

### A TECHNICAL INSTITUTE.

MANY of the technical societies in London have no meeting-rooms of their own. In 1877 Dr. Siemens suggested in his inaugural address to the Iron and Steel Institute that it would be desirable to have a building for the accommodation of these societies, and he has followed up his suggestion by the munificent offer of 10,000*l.* towards the erection of a suitable building at Westminster. The Council of the Iron and Steel Institute have accepted the offer, and have appointed a committee to confer upon it with the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Institute of Naval Architects, the Society of Telegraph Engineers, and such other bodies representing applied science as may suitably be included in this project.

### ENGLISH TRADE RIGHTS IN FRANCE.

LAST month an interesting trial came before the Civil Tribunal of the Seine, at Paris. Messrs. A. Rowland & Son, of Hatton Garden, sued a batch of French perfumers for damages occasioned by infringement of their trade-mark, and counterfeit of their Macassar oil. The plaintiffs had registered their trade-mark in France, in 1861, and again in 1876, but it was shown for the defence that a certain printer had, since 1851, regularly supplied perfumers with labels and wrappers which were an almost exact copy of those used by the plaintiffs. They bore Messrs. Rowland's signature, gave their London address, and even added the name and address of the English printer. The only appreciable difference was that the name "Rowland" had been translated to that of "Roulant." The defendant claimed that Messrs. Rowland having tacitly permitted this proceeding so long, their name and product had now become public property. Another technical defence was that, as foreigners, Messrs. Rowland had no *locus standi* in that Court. The judgment overthrew both these pleas. The Treaties of Commerce of 1860 and 1873, between England and France, stipulate reciprocal protection in the matter of merchandise marks. The title, Macassar Oil, may have become public property, but the name of Rowland was still to be regarded as the exclusive property of the plaintiffs. The defendants were, therefore, ordered to pay the expenses of the action, and the following damages:—Bleuze-Hadancourt, 1,000*fr.*; Delettrez, 200*fr.*; Panafien, 1,200*fr.*; Cabridens, 600*fr.*; Blaize, 200*fr.*; Faré-Guerin & Co., 200*fr.*; and Pousot (the printer), 200*fr.* The latter was to give up his plates or stones, and the stock of labels and Macassar oil in the possession of each of the defendants was to be confiscated.

### THE PARIS SILVER MEDAL FOR AMERICAN ESSENTIAL OILS.

THE *New York Oil, Paint, and Drug Reporter* is responsible for a history which we hope will long be rare in connection with commercial houses. Among the awards after the Paris Exhibition of last year was that of a silver medal to Messrs. Hale & Parshall, of Lyons, Wayne County, New York, for their collection of essential oils of peppermint, spearmint, and others. Looked at from the lowest point of view, we doubt if those medals were worth the attention of

a respectably clever cheat. At no previous exhibition were the awards so openly given on the strength of the reputation and previous honours gained by the exhibitors, regardless to a great extent of the quality of the display there produced. This fact has made the Paris awards in the opinion of competent persons lower in value even than those of preceding exhibitions. Professor Jenkins, one of the American jurors, has stated that in voting for a silver medal to Messrs. Hale & Parshall he was considerably influenced by a label which was circulated by the firm, and which purported to be a lithographed *facsimile* of the Centennial report on their exhibit. It ran thus:—

"For the beauty and purity of their products.

"For the good quality of these oils, which they distil from plants grown by them in Wayne Co., N.Y., U.S.A.

"The largest essential oil distillery in the world."

To this was added the signatures of the judges and officials. A cablegram was sent from Paris to Hale & Parshall, asking for the original report, and in reply Alfred S. Hale sent an affidavit swearing that the label was "substantially correct." The following extract from the official report will indicate how nearly it approached verbal accuracy:—

460. Hale & Parshall, Lyons, N.Y., U.S.—OILS OF PEPPERMINT, SPEARMINT, WORMWOOD, AND TANSY.

*Report.*—Commended for the good quality of these oils, which they distill from plants grown by them and by others in Wayne County, New York.

461. H. G. Hotchkiss, Lyons, N.Y.—OIL OF PEPPERMINT AND OTHER ESSENTIAL OILS.

*Report.*—Commended for the beauty and purity of their products.

Mr. Hotchkiss has prayed the American Commissioner, Governor McCormick, to withhold the medal from Hale & Parshall, on the ground that it was obtained by false and fraudulent representation, and in support of his petition he produces an affidavit signed by the lithographer who printed the labels, and who swears that the original document was brought to him by Alfred S. Hale, with instructions to add some words and take out others, and print 2,000 of the manipulated labels.

If Hale & Parshall publish any explanation in defence of their conduct we shall be happy to give it every possible publicity, but if the facts are as stated they must take the consequences of being convicted of a contemptible fraud.

### THE PHARMACIE CENTRALE OF FRANCE.

AN unpleasant sensation has been provided for French pharmacists by the unexpected revelation of an extraordinary deficit in the value of the shares of the celebrated Pharmacie Centrale. This concern, which was founded by the late M. Dorvault, and conducted by him until his death, was apparently in the most flourishing condition. It is a sort of joint-stock company, the shareholders being necessarily pharmacists, and invariably customers. The nominal capital was five million francs, and the company have offices and warehouses in Paris, Lyons, and Marseilles, and factories at Bordeaux, Nantes, and Toulouse. The great drug business of Menier was absorbed into the concern some 15 years ago, and of late years the turn-over has reached the sum of seven and a half million francs, or 300,000*l.* sterling. For some time previous to the death of M. Dorvault there had been among some of the shareholders of the company a muttering of revolt against the imperial system in which the late brilliant and energetic director had ruled the whole of the affairs, and the result was that a committee had been appointed to investigate and report on the real value of the assets of the business. The death of M. Dorvault last February, and the consequent arrangement of his accounts,



caused an extension of the investigation, and the conclusions arrived at have lately been made public.

M. Dorvault had nearly a million francs invested in the business. Besides receiving interest on that in common with the rest of the proprietors, he, as director, was paid 40 per cent. of the remaining net profit, 60 per cent. going to the shareholders. For some years past M. Dorvault's share has averaged about 100,000 francs (4,000*l.*) per annum. The scrutiny has shown, however, that for years past the apparent profits have only been realised by keeping on the books a mass of bad and doubtful debts, and by omitting to allow with anything like sufficient accuracy for depreciation of stock and material. The increase of business gained by the union with Menier seems to have been partly responsible for the present position of affairs. That connection in M. Dorvault's hands has proved very unprofitable.

Among the figures now set forth are some which tell too plainly how necessary the investigation had become. For example, there are 156,988*f.* 13*c.* at Lyons for "erreurs inconcevables," 65,429*f.* 30*c.* at Marseilles for "négligences de comptabilité." Bad and doubtful debts amount to 853,724*f.* 34*c.* The committee believe that 10, 15, or perhaps 20 per cent. of this sum may yet be realised, and they will make their utmost efforts to obtain what they can, but in order to disencumber subsequent balance-sheets this item will be reduced to unity, a single franc to figure in future reports, in order that the matter may not be lost sight of.

The application of these heroic measures is not a mere matter of accountancy. It is only fair to the memory of the late director to state that both he and, since his death, his widow have cordially aided the committee in their determination to restore the Pharmacie Centrale to a healthy commercial position, and a sum of nearly 400,000 francs has been agreed upon as the share of loss which the Dorvault family should suffer, Madame Dorvault also consenting that the payment of her stock in the company shall extend over five years. The rest of the punishment falls on the company. A reserve fund of over 200,000*f.* is swept away, while the nominal capital of the company is to be reduced from 5,000,000*f.* to 3,750,000*f.* That is to say, every share of 100*f.* will now be worth only 75*f.*, and will only be entitled to interest on that sum.

The presentation of the report, which we have summarised above, to a rather excited meeting caused a sharp discussion, but the proposals of the committee were all ultimately carried. Afterwards M. Emile Guevoix, who had been the most active member of the committee of investigation, was appointed director in the place of M. Dorvault, but the salary which the committee had proposed for him of 50,000*f.* was reduced to 30,000*f.* with residence. It is understood, however, that with the return of better days the director may expect an advance on the last-named amount, and the *séance* concluded with a unanimous vote awarding a gold medal to M. Guevoix in recognition of the painful but salutary services he had rendered to the Pharmacie Centrale in this searching inquiry. M. Emile Guevoix is the actual President of the General Association of the Pharmaciens of France, and we are informed by those who know him that he is peculiarly fitted for the onerous task which he has undertaken.

The Pharmacie Centrale is far too firmly established to leave room for doubt as to its future, if the present determination of its directors is supported and carried out with unflinching courage. But its dangerous position, which has happily been recognised in time, is one more proof, if such were needed, of the absolute importance in every business of the most unswerving fidelity in all the details of book-keeping.

## THE CHEMICAL SOCIETY.

Thursday, May 14.

MR. WARREN DE LA RUE, President, in the chair.

The following papers were read:—

"On Nitrification" (Part II.), by R. Warington. The author finds that light hinders the conversion of ammonia salts into nitrites and nitrates by the nitrifying ferment; the presence of carbonate of calcium is indispensable; nitrification is stopped by a temperature of 40° C.; there is a period of incubation after the addition of the ferment, during which no effect is produced; this period is increased by using stronger solutions of ammonia salts, but diminished by raising the temperature; in some cases nitrites, in others nitrates, are formed.

"On the Alkaloids of the Veratrum Family" (Part III.), by C. R. A. Wright and A. P. Luff. The authors have obtained two new crystalline alkaloids—pseudojervine, melting at 299°, and rubijervine, melting at 237°—and a new amorphous base, veratralbine, from veratrum album.

"On the Alkaloids of the Veratrum" (Part IV.), by C. R. A. Wright. From veratrum viride the author has obtained jervine, pseudojervine, rubijervine, veratrine, and cevadine.

"On the Alkaloids of the Aconites" (Part IV.), by C. R. A. Wright and A. P. Luff. The authors have examined Japanese aconite roots, and obtained a base, japaconitine, melting at 185°, resembling aconitine. By saponification a new base, japaconin, was formed. The yield of alkaloids from Japanese aconite is about three times that from A. napellus.

"On the Action of Hydrochloric Acid on Manganese Dioxide," by S. U. Pickering. The author criticises, and in the main disagrees with, the conclusions of W. W. Fisher as to the existence of manganese tetrachloride.

"On some Reactions of the Ammoniochloride of Magnesium, known as Magnesia Mixture," by H. D'Arcy Power. The author has observed that potassium salts, and especially potassium iodide, precipitate magnesium hydrate from this solution to an extent equal to 46 per cent. of the magnesia present.

"The Composition of Cows' Milk in Health and Disease," by A. Wynter Blyth. The author has separated from whey two alkaloidal bodies by precipitation with nitrate of mercury—galactine, and lactochrome; also a supposed glucoside precipitated by tannin. He gives details as to the composition of milk from healthy and diseased cows, and concludes that a cow suffering from very acute disease may give milk differing in no essential feature from normal milk.

"On the Effect of Alcohol on Saliva, and on the Chemistry of Digestion," by W. H. Watson. Alcohol hinders markedly the conversion of starch into sugar by saliva; a trace of hydrochloric acid, on the other hand, increases the rapidity of the conversion.

Thursday, June 5.

MR. WARREN DE LA RUE, President, in the chair.

It was announced that a ballot for the election of Fellows would be held at the next meeting (June 19). The following papers were read:—

"A Contribution to the Theory of Fractional Distillation," by T. E. Thorpe. The author has observed that of a mixture of equal volumes of carbon tetrachloride b.p. 76·6° and of methyl alcohol b.p. 65·2°, 46·5 per cent. of the whole distils over at 55·6° to 55·9°—10° lower than the boiling-point of its most volatile constituent.

"Preliminary Note on the Action of Organozinc Compounds on Quinones," by F. R. Japp. The author has studied the action of zinc ethyl on phenanthrene quinone, and obtained a substance crystallising in faintly-yellowish plates, having the composition C<sub>16</sub>H<sub>14</sub>O<sub>2</sub>C<sub>2</sub>H<sub>5</sub>O. He hopes by these reactions to distinguish quinones from double tretones.

"Third Report to the Chemical Society on Researches on some Points in Chemical Dynamics," by Dr. Wright and Messrs. Luff and Rennie. This is a lengthy paper, in which the action of carbonic oxide and hydrogen on a uniform weight of copper oxide has been studied at various temperatures; the results are plotted out in numerous curves. In all cases carbonic oxide reduces more quickly, or at a lower temperature, than hydrogen.

"On Fractional Distillation," by F. D. Brown. The author has studied with great care the distillation of mixtures of benzene and carbon disulphide.

"On Chlorotannic Acid," by J. W. Mallet. A bottle containing a strong solution of stannous chloride, after standing for a year, deposited a transparent jelly-like substance, which proved to be  $\text{SnO}_2 \cdot \text{HCl}$ . Soda and ammonia salts were obtained.

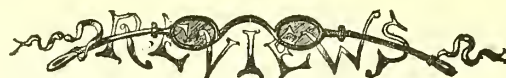
"On Indigopurpurin and Indirubin," by E. Schunck. Baeyer and Emmerling obtained a red colouring matter from isatin, which they named indigopurpurin; this is identical with indirubin, obtained by the author from indican. The author considers that the name "indigopurpurin" should be abolished.

#### A RURAL DEAN ON "STORES."

THE following was written by a Somersetshire clergyman and rural dean in reply to a prospectus advocating the merits of one of the new "stores":—

"Sir,—You have been good enough to send me a paper proclaiming the vast advantages of joining a certain company, entitled 'The Junior Army and Navy Stores (Limited)'. Now, sir, what have we parsons got to do with the Navy and Army except to pray for them and help pay them?—both of which I have already done for towards half a century! And as for joining the newfangled companies, I have four distinct objections to them, which I hope you will allow me respectfully to state:—1st. I have no wish to rob good honest tradesmen, who have to get their living by myself and others. I am a curious old man of the Sir Roger de Coverley company. My country tailor makes my coat, and my village shoemaker my shoes. If there were but a hatter here, he should have the honour of crowning me. I go out of my parish and district for nothing hardly which I can get in them, and I intend so to proceed till one of my own old elms is sawn up for my coffin. 2nd. I am a staunch Conservative, and don't want to turn my commercial friends into Radicals and Liberationists. Let the Whigs do as they please. 3rd. As an English parson, I teach and practise my catechism, which tells me 'to do unto others as I would they should do unto me.' Now, while my tenants pay me to the day my rents and tithes, and while my shopkeepers are honest, civil, and obliging, why should I say 'Thank you, Messrs. Brown, Smith & Jones, but I deal now with Messrs. Sweeneyburgh & Smithereen, and the new Cheap Store Company'? 4th. Though not a miser, I have a weakness for taking care of my money—the principal, that is, whatever becomes of the interest. I am not partial to joint-stock relations. I have more confidence in a cow than a Khedive, and would rather rest content with my 'two and a half' from a dirty acre or two, than run the risk of eight or nothing in the 'Artificial Rain Company' or the Zulu Fifty per Cents. If people would take the advice of a man that has seen a little of life, I would venture to tell them, 'Deal at home. Pay ready money, and you will get discount from your tradesman. Buy nothing till you can afford to pay for it. Help your shopkeepers to sleep comfortably, and you will sleep better yourself. Keep away from foreign parts and foreign folk. And though some of the juniors may call you a fool for your pains, you will sit all the easier in your arm-chair, and not fancy that your dressing-gown, hanging loosely on its peg in the glimmering light of your chamber, is the ghost of some poor, starved, injured shopkeeper, that hung himself when you joined 'The Civil Service Supply Association!'"—I have the honour to be, sir, your very faithful servant, J. H. STEPHENSON, Lynnhsham."

**STAIN FOR FLOORS.**—One ounce Vandyke brown, in oil; 3 ounces pearlsh; 2 drachms dragon's blood; one quart boiling water. Mix. The stain may be used hot or cold, and applied with a brush, which should be used with the grain of the wood and never across. The floor should of course be well smoothed and sandpapered, the cracks being filled with plaster of Paris. When the stain is dry, size with glue, and finish with hard oak varnish.



AND

#### Literary Notes.

##### *Muter's Chemistry.\**

WE had formed a high ideal of the second edition of Muter's "Chemistry." The first issue was so fresh, sparkling, and sound that it immediately received the welcome it deserved, and its preface contained these words: "Should it find favour it is the author's intention to extend it greatly in another edition." Possibly Dr. Muter has in view the third or fourth; if not we fear this "good intention" has become a paving-stone. We must confess to a little disappointment. Improvement there certainly is, and additions have been made, but only in details, which may fairly be called finishing touches. There has been no extension of the original work, but it has been re-arranged. In the first edition the analytical characteristics of each metal and radical were enumerated on the page facing that containing the description of its uses and other properties, and this was one of the novel and distinctive features praised by the reviewers. The change, and the reasons for it, are described in the preface: "Having recognised the somewhat inconvenient size of my 'Pharmaceutical Chemistry,' and the possibility of an accident in the laboratory spoiling an expensive work, not to mention the difficulty of turning over pages of synthetical matter to find the analytical point sought for, I have determined, in issuing the Second Edition, to divide it into two distinct portions. The First Portion contains all the theory and descriptions . . . and is intended for home study, while the Second Portion . . . contains all the practical matter . . . for use in the laboratory."

Each page of the present edition now contains one-third more matter than before. The type used is the same, and the economy has been effected by removing the spaces.

It is a pity that the theoretical parts of the first chapter have not been thoroughly revised. They are very concise, but the language in many cases is anything but accurate, and the student who gathers his ideas from this work alone will certainly be fogged. In these passages popularity has too often been preferred to precision, but we must make a strong plea in favour of the latter. No lens is worth much if its definition is faulty, and twenty indefinite notions are not so valuable as a single clear idea.

Macaulay warns us to judge literary work not by ideal, but by contemporary standards. Muter's "Chemistry" will certainly be able to hold its own in any "battle of books," but we still look forward to extended editions. The indexes and tables of contents are as near perfection as possible: they are the work of Mr. Ince.

"THE Villa Gardener Manual for 1879-80" (the *Villa Gardener* Office, Salisbury Square, E.C., 1s.) contains a most useful garden calendar, excellent guidance for the amateur in numberless details of plant culture, and a variety of household information, which must give it a permanent position in any family to which it finds its way.

SPON'S "Encyclopædia of the Industrial Arts, Manufactures, and Commercial Products" (E. & F. N. Spon. Edited by G. G. André, F.G.S.), continues to be of special interest to chemists. Part IV. was devoted entirely to alcohols, and Part V. is mainly a carefully-prepared treatise on alkalies. So far one-sixth of the work has been published, and the first letter of the alphabet has not yet been exhausted. The letter A evidently represents an important section of our commercial products.

\* (1.) "An Introduction to Pharmaceutical and Medical Chemistry." Pp. 16+398. (2.) "An Introduction to Analytical Chemistry." Pp. 12+216. By Dr. John Muter, M.A., F.C.S. Published at the South London School of Pharmacy.



THE "Pharmacopœia of the British Hospital for the Diseases of the Skin," edited by Balmanno Squire, M.B., the Senior Surgeon (London: Churchill), is a useful addition to our formulæ books. It gives in very brief compass the results of the experience of the hospital, does not repeat formulæ from the B. P., and comments and cautions by the editor are inserted where necessary.

"A MANUAL of Midwifery for Midwives," by Fancourt Barnes, M.D. (London: Smith, Elder & Co.) This is a treatise especially intended for the use of persons seeking the diploma of the Obstetrical Society of London. It is concisely written and freely illustrated, and will no doubt serve a useful purpose by providing important technical instruction which otherwise could only be found in much larger works.

MESSRS. E. F. TESCHEMACHER AND J. DENHAM SMITH have published in pamphlet form a paper "On the Estimation of Phosphoric Acid by Magnesia for Commercial Purposes" (London: Hardwicke, 2s.). They describe their process in detail, the purpose being to obtain the phosphoric acid in phosphates as pyrophosphate of magnesia. It appears that their method gives generally lower results than other chemists obtain, but the authors maintain that this is the fault of the other processes. At any rate they now offer theirs for skilled criticism.



# THE SALE OF A BUSINESS. DUNCOMBE v. HACKETT.

THIS was an action for the specific performance of an agreement for the sale of a chemist and druggist's business at Scarborough. The trial was heard by Vice-Chancellor Bacon on May 20.

Mr. Horton Smith, Q.C., and Mr. Oswald were for the plaintiff; Mr. John Cutler appeared for the defendant, who filed a counter-claim.

Mr. Horton Smith, Q.C., in opening the case, said that the plaintiff in 1876 was carrying on the business of a chemist and druggist at Raynham, Kent, and the defendant was also a chemist and druggist, having one place of business in the North Marine Road, and another in Leading Post Street, Scarborough. In consequence of ill-health the defendant was desirous of selling his Leading Post Street business, which he advertised in the ordinary way. The plaintiff, being anxious to leave Raynham, answered the advertisement, and negotiations were entered into which led to an agreement being come to; and the question which the Court was now called on to decide was whether the parole agreement set up by the plaintiff, or the agreement under seal dated November 30, 1876, put forth by the defendant, was binding on the parties.—By the statement of claim the plaintiff alleged that the defendant agreed to sell him the lease of the house, goodwill, fixtures, stock-in-trade, &c., of the Leading Post Street business in consideration of payment of the sum of 495*l.*; whereas the agreement in writing, drawn up by the defendant's solicitor, and executed on November 30, was to the following effect:—That for one year Hackett was to carry on the Leading Post Street business as Dnncombe's assistant, at a salary of 2*l.* per week. At the expiration of 12 months Duncombe covenanted to sell and assign to Hackett the whole of the stock-in-trade and effects on the said premises for the sum of 495*l.*—300*l.* to be paid down, and the balance in four equal instalments. The plaintiff alleged that this agreement was materially different from

the draft agreement which he had previously read over and assented to; that the alterations were made without his knowledge or consent; that he signed the document without reading it over, or having it explained to him. The plaintiff denied that he had ever agreed to act, or had acted, as the defendant's servant, or that he had rendered any accounts. The sum of 125*l.* which he had paid to the defendant he had paid in part payment of the purchase-money of the lease of the house, and the stock-in-trade and goodwill of the business. On December 31, 1877, a fire broke out on the premises. The stock-in-trade was insured in 435*l.*, and the defendant having received the money to cover damages from the fire insurance office, the plaintiff sought to have it declared that the money so received by the defendant should be accounted for by him and placed to the plaintiff's credit as part payment of the purchase-money. The defendant, on the other hand, claimed to retain the insurance money, and alleged that in February, 1878, the plaintiff, in Mr. Williamson's office, repeated his intention of leaving Scarborough, and rendered such account as he was able—admitting that he was indebted to the defendant in the sum of 150*l.*, in respect of which he paid 30*l.*, and undertook to pay the balance. Three days afterwards the plaintiff commenced his action to have the agreement reformed and rectified, and for other relief. The defendant thereupon filed a counter claim by which he sought to recover 120*l.* from the plaintiff. A lengthy correspondence was put in and read for the purpose of showing that it was the intention of the parties that the lease of the premises was to be included in the sale, which was an out-and-out one. The plaintiff having been examined *viva voce*,

The Vice-Chancellor, without calling on counsel for the defence, said he was bound to give effect to the agreement in writing of November 30, 1877. Apart from the improbabilities of the case set up by the plaintiff with reference to the agreement, the conduct of the plaintiff whilst he was in possession of the business was quite consistent with the case made out by the defendant. There must, therefore, be judgment for the defendant with costs.

With reference to the counter claim,

Mr. Horton Smith, Q.C., submitted that no order could now be made on the counter claim. On Wednesday morning (21st) the learned counsel, at the sitting of the Court, said he had looked up the case of Rolfe v. McLaren, and he now withdrew his contention that no order should now be made on the counter claim.

The Vice-Chancellor thought that issue had been joined on the counter claim; he thought that the issues were properly opened, and that on the evidence of the plaintiff himself the defendant was entitled to judgment on the counter claim.

Judgment, therefore, for the defendant with costs in the action, and the counter claim allowed with costs. Judgment to be dated from the 21st.

## A PARTNERSHIP DISPUTE.

IN the Chancery Division of the High Court of Justice, on Wednesday, Mr. Chitty, Q.C., moved on behalf of the plaintiff in a case of "Fletcher v. Lorimer" for an injunction against the defendant. He said that in this case Mr. Cecil Russell appeared for the defendant. The plaintiff was in possession of an order obtained *ex parte* from Mr. Justice Hawkins to the effect of restraining the defendant from preventing letters addressed to the plaintiff from reaching him. If Mr. Cecil Russell would submit to that order being continued till next motion day, he (Mr. Chitty) would not now bring on his motion. The dispute was a partnership dispute, plaintiff and defendant being both chemical manufacturers.—Mr. Cecil Russell said he understood that the plaintiff had sent round circulars to the customers of the firm containing a notice of this, and that the letter which the plaintiff complained of as addressed to the customers of the firm had been withdrawn, so that the letters for the plaintiff could now be received by him in due course; but he thought that sending circulars to the old customers of the partnership was going rather further than was fair.—Mr. Chitty: I am quite willing not to do that, if your Lordship pleases.—His Lordship: Oh, yes; send no more circulars.

## Bankruptcies and Liquidations.

JOHN RICHARDSON, Druggist, 267 High Holborn.

THE debtor, carrying on business as above in the name of "Field & Co.," and described also as of Lancaster Street, Hyde Park, and Pimlico Road, baker, has presented a petition for liquidation, and his affairs were brought before the Court on April 26. Mr. F. C. Willis applied for the appointment of Mr. H. W. Pettis, accountant, Guildhall Chambers, as receiver of the estate, and for an order restraining various actions until after the meeting of creditors. The liabilities were estimated at about 3,700*l.*, and assets 1,000*l.* The debtor was being sued by Messrs. McDougall Brothers, Mark Lane, for 88*l.*; Messrs. W. & G. Clowes, Charing Cross, 40*l.*; the West London Commercial Bank, 475*l.*; and by Messrs. Wray & Co., 110 Fleet Street, for 84*l.* 11*s.* 7*d.* Mr. Registrar Pepys made the desired appointment and granted an injunction. On a subsequent day His Honour authorised the receiver also to act as manager.

*Re* S. BOWDITCH.

THE debtor, described as of 134 Fenchurch Street, drysaltery broker, trading in partnership with George Crowther, and residing at Peckham, has presented a petition for liquidation, and Mr. Johnson applied to the Court on May 27 for the appointment of Mr. H. A. Dubois, accountant, Chancery Lane, as receiver, and for the usual restraining order. The debts were about 550*l.*, and the assets consisted of the debtor's interest in the partnership assets and household furniture, subject to a bill of sale. Mr. Registrar Pepys granted the application.

SAMUEL BARRETT, Frizinghall.

A PETITION was filed in the Bradford Bankruptcy Court on May 20, on behalf of Samuel Barrett, chemist and druggist, Frizinghall, with liabilities estimated at 450*l.*

## Chemistry.

### PETROLEUM TESTING.

MR. HOLLY, of the firm of Lockwood Brothers & Holly, New York City, has introduced an instrument in which the galvanic spark is utilised in estimating the flashing-point of petroleum. It is claimed that this instrument secures far greater uniformity in the results obtained by different operators than any other device.

### HEAT AND MOTION.

M. PICTET recently demonstrated before the Academie des Sciences, theoretically and experimentally, the definition of temperature, that it is "represented by the length of calorific oscillation of the molecules of a substance." He verifies these two laws—(1) The higher the points of fusion, the shorter are the molecular oscillations; (2) The temperature of fusion of solids corresponding to equal lengths of oscillation, and the product of the lengths of oscillation by the temperatures of fusion, should be a constant number for all solids. This is an important addition to our knowledge.

### FALSE AMBER.

MESSRS. MARKWALD & CO., amber merchants, of Gracechurch Street, have informed the editor of the *British Mercantile Gazette* that false or imitation amber, which we described on p. 211 of our last number, is "highly detrimental to health. . . as has been proved by the greatest medical authorities of the continent." The latter assertion is grandly indefinite, and can never be disproved. But we desire names and circumstantial statements before we can believe that a compound of camphor, turpentine, and copal is poisonons—even at one-fifth the price of true amber.

### BORAX: ITS USES.

THE following summary of the uses of borax is taken from an advertisement in a technical journal. It is used by cement manufacturers, in the preparation of the finest cement; candle manufacturers, in the formation of the completely destructible wick; starch manufacturers, in the preparation of starch, giving a beautiful gloss; glass manufacturers, with barytes, sand, and soda; ironfounders and smiths, in dissolving the metallic oxides; dyers and bleachers, as a mordant and purifier; braziers, in welding; potters, for their glazes; tanners, for the quick production of leather; chemists, grocers, and drysalters, for general household purposes; provision merchants, in preserving eggs, butter, hams, and fresh meat of every description; timber merchants, for preserving soft woods, making them hard and durable; dentists, for flossing purposes; and by medical men, for wounds and internal application.

## Inventions.

### HYDRO-EXTRACTORS.

MM. PIERRON & DEHAITRE have brought out some improvements in their patent hydro-extractors or *essoreuses*. These are machines for rapidly drying chemical products, cloth, &c., and utilise centrifugal action. The substance to be dried is placed in an inner perforated chamber which is rapidly rotated by a shaft and wheel. In the smaller sizes, worked by hand, it is not difficult to obtain 1,500 to 1,800 revolutions per minute.

### EXPLOSIVES.

A CORRESPONDENT of the *Berg. u. Hütt. Zeitung* gives the following analysis of explosives used as substitutes for gunpowder: Diorexine—nitrate of potash, 50 per cent.; nitrate of soda, 25 per cent.; sulphur, 12 per cent.; sawdust from hard wood, 13 per cent. Azotine—Chili saltpetre, 69.05 per cent.; carbon, 15.23 per cent.; sulphur, 11.43 per cent.; petroleum, 4.29 per cent. Petralite—nitrate of potash, 64 per cent.; impregnated wood or charcoal, 30 per cent.; antimony crudum, 6 per cent. Johnite—saltpetre, 75 per cent.; sulphur, 10 per cent.; lignite, 10 per cent.; picrate of soda, 3 per cent.; chlorate of potash, 2 per cent. Carboazotine—nitrate of potash, 61.04 per cent.; sulphate of iron, 0.73 per cent.; soot, 24.65 per cent.; sulphur, 13.58 per cent.

### POWDERS SOLIDIFIED BY PRESSURE.

M. SPRING has been testing the possibility of producing solid masses from powders. The apparatus used was a solid steel prism with a cylindrical hole bored in its axis. This hole was nearly filled with the powder packed solidly by a steel stamper. A gradually increasing pressure of about 20,000 atmospheres was then applied by means of a screw. Nitre and poplarwood sawdust thus treated yielded homogeneous translucent masses like porcelain. The nitre was much harder, more transparent, and less easily broken than when fused. The poplarwood sawdust could be easily broken at right angles to the line of pressure, but in the other directions was harder than the natural wood. Chalk powder could be solidified only when slightly moistened. The process may perhaps be useful in obtaining pencils of substances which are intractable to ordinary processes.

### THE AUDIOMETER.

ON May 14 Dr. Richardson described before the Royal Society an instrument invented by Prof. Hughes, and named the audiometer. It is a combination of the telephone, a new form of microphonic key, and a Leclanché battery. By its means the power of hearing sounds can be accurately gauged and recorded on a suitable arbitrary scale. The one in use is divided into 200 degrees, the zero being the point of positive silence from the sound produced by the instrument through the telephone, and the maximum being



audible to every one not actually deaf. The first point observed with the new instrument is that the power of hearing sound is very sharply defined. The sound is abruptly lost within a range of one-hundredth part of the entire scale, both when the person can hear audibly and when he is more or less deaf. If the sound is suddenly moved from 15 to 5 on the scale, the weaker sound is inaudible, though if the scale had been gradually moved the sound at 5° would have been easily heard. Filling the chest and holding the breath increases the capacity for hearing for a few seconds. Holding the breath with the chest not full does not produce the same result. Most persons hear better with the right ear than with the left, but physicians who have accustomed themselves to use the stethoscope with the left ear hear better with it than the right; and four persons who habitually listened to public discourses from the left side also heard better with the left ear. In a youth who had suffered serious defect of hearing for seven years, owing to partial destruction of the tympanum, and who in the right ear could only detect sound at 107°, there was an inability to catch all the sounds lying between 130° and 107°, until he could remember what he had to listen for. When the barometer stands at 30 inches Dr. Richardson can hear to zero with both ears, but when it is below 30 he fails to reach zero by 2° on the left side. It is found that various forms of disease, such as anæmia and vertigo, seriously impair the hearing power.

During the investigation it occurred to Dr. Richardson to construct an instrument for translating the movements of the arterial pulse into telephonic sounds. This has been successfully accomplished, and the instrument has been named the sphygmophone.

## Formula.

### LOCAL ANÆSTHETIC IN DENTISTRY.

Pulv. camphor	..	..	..	..	..	5vj.
Æther. sulphur.	..	..	..	..	..	5j.

Apply this to the gum surrounding the tooth to be removed, until the gum turns white, when the tooth can be extracted with scarcely any pain.—*Dental Cosmos*.

### A BELGIAN PATENT TOOTH WASH.

A TOOTH WASH has been patented in Belgium by a Mr. T. L. Smits, the composition of which is thus described:—

Water	..	..	..	..	..	..	Parts
Urea	..	..	..	..	..	..	950
Uric acid	..	..	..	..	..	..	12
Fixed salts	..	..	..	..	..	..	4
Urate, oxalate, and oxalurate of lime, cystin, &c.	..	..	..	..	..	..	7
	..	..	..	..	..	..	8-90

With a little perfume.

As this is a fairly correct analysis of ordinary urine, Mr. Smits' "eau dentifrice" will only need to be named in order to be avoided. The *Chemical News*, in noticing the patent, asks, Is this a new way out of the sewage difficulty?

### ANTI-FAT.

DR. FAIRBANK in the *British Medical Journal* says that "Anti-fat is most probably an extract of the *fucus vesiculosus*, or 'popping seaweed.' More than 15 years ago, he says, I gave some of this extract in pill (four grains three times a day) to a very corpulent lady, who in three months lost three stones in weight without any change of diet. Since then I have frequently given it for reducing weight depending on the accumulation of adipose tissue, and have never found it fail. The solid extract can be easily made into four-grain pills, which must, however, be kept in a stoppered bottle, as they readily absorb moisture from the air. I may say that a patient who has been lately taking it as an anti-fat, and who always suffered very much from rheumatic pains about the body, has been entirely free from such trouble while she has been taking the extract, a fact which she quite independently noted." In the advertisement of Anti-fat it is stated to be a "compound concentrated fluid extract of sea-lichens."

### APERIENT PILLS.

DR. MACARIO publishes, in the *Nice Médical*, the following prescription, which has never failed him in certain forms of constipation, such as obstruction of the bowels arising from nervous troubles, as hysteria and hypochondria, or from a sedentary life, or from certain affections of the brain and of the spinal column.

	Centigrammes
Powder of sulphate of iron..	.. .. 10
Socotrine aloes	.. .. 5
Powder of rhubarb	.. .. 2
Extract of belladonna	.. .. ½

This is the dose for one pill.

A pill is given at night immediately after supper; if no effect should have been produced in from 12 to 15 hours, two or three must be taken the next day; but as soon as they have operated, it is necessary to come down to one, giving it daily for a week, then wait for some time to see if the patient be cured. If not, the same treatment must be repeated for two or three days, and so on till the bowels begin to move regularly.

### PURIFICATION OF SPIRITS FROM FUSEL OIL.

ACCORDING to the *Brenner's Zeitung*, a single agitation of spirit with the following compound will completely remove the fusel oil from potato brandy, and will leave the fluid beautifully clear:—

	Parts
Sugar of milk	.. .. 1
Starch powder	.. .. 1
Powdered albumen	.. .. 5

About 4 oz. of the powder is sufficient for a gallon of spirits.

## Personalities.

IT IS RUMOURED that Dr. B. Richardson has been offered 5,000*l.* for a lecturing tour in the United States.

MR. G. MATTHEY, of the firm of Johnson & Matthey, is one of the candidates for the fellowship of the Royal Society.

GEORGE BENTHAM, Esq., author of the "Flora Australiensis," was, on the Queen's birthday, May 24, appointed Companion of the Order of St. Michael and St. George. The *Times*, in making the announcement, stated that he belonged to Victoria, Australia! He is the author of Bentham's "British Flora," conjoint author with Sir J. D. Hooker of the "Genera Plantarum," and author of many other important botanical works.

DR. FERDINAND VON MUELLER, C.M.G., Government Botanist, Victoria, was at the same time promoted to the rank of Knight Commander of the said Most Distinguished Order. He is conjoint author with Bentham of the "Flora Australiensis," translator of Wittstein's "Organic Constituents of Plants," and author of other works.

MESSRS. LORIMER & FLETCHER, manufacturers of scale preparations and of various other chemical products, at the North London Chemical Works, Holloway Road, N., have dissolved partnership, and now carry on similar businesses distinctly. Mr. Fletcher retains the old premises, and will trade under the style of Fletcher & Fletcher. Mr. Lorimer has established himself in the Junction Road, N.

MR. JAMES SLIPPER.—We have received a letter from a son of Mr. Slipper, informing us that his father's illness was not so serious as was stated in our last. He had an attack, which assumed somewhat the form of an epileptic fit, and which was brought on by suppressed gout, but he has never had the slightest sign of paralysis. We are glad to hear that he is recovering.

MESSRS. DARBY & GOSDEN, of 140 Leadenhall Street, announce their intention of retiring from business as pharmaceutical chemists on this date (June 14). Their stock-in-trade, formulæ, books of prescriptions, and everything connected with their business has been sold to Messrs. Corbyn, Stacey & Co., who will continue to carry on the concern on the same premises. The establishments of this firm will henceforth recur four times, like milestones on a journey, from Aldgate Pump to the Marble Arch.

The *City Press* states that the new premises being erected for Messrs. Evans, Lescher & Evans, in Bartholomew Close, cover an area of more than 8,000 square feet.

**POISONOUS POSTAGE STAMPS.**—In a letter to the *Times*, Dr. Hassall states that penny postage stamps contain lead in large quantities, derived doubtless from the red lead employed in colouring them. The pigment is easily removed, and may be a source of danger to persons who do not use a "damper," and have to stamp many letters.

The will of Mr. Henry Silverlock, formerly of Wardrobe Terrace, Doctors' Commons, medical label printer, and of Wickham House, Wickham Road, New Cross, Kent, who died on March 4 last, was proved on April 28 by Mr. William Beckwith Towse and Mr. Thomas Wm. Marchant, sons-in-law of the deceased, the acting executors, the personal estate being sworn under 60,000*l*. The testator leaves to his wife his furniture and household effects and 600*l*. per annum for life; to his half-sister, Elizabeth Hayman, 30*l*. per annum for life; and all the rest of his property equally between his five daughters, Henrietta, Rosetta, Lauretta, Violetta, and Margaretta, and his two sons, William Henry and Thomas Brewer.—*City Press*.

### Foreign Items.

**OZONE WATER**, a specialty largely sold in Germany, is stated in Hager's *Pharm. Centralhalle*, to contain no ozone. Its oxidising action is due to a little free chlorine, and it may be exactly imitated by very abundantly diluting the official chlorine water.

**THE WORLD'S FAIR OF 1883 AT NEW YORK.**—That the hundredth anniversary of the acknowledgment of the Independence of the American colonies by the mother-country in 1783 will be signalled by a grand world's fair in this city may be accepted as morally certain.—*Scientific American*.

**STRYCHNINE AND MOLLUSCS.**—It has been recently observed by Professor Haeckel, of Marseilles, that 25 milligrammes of strychnine may be administered to the mollusc *Helix pomatia*—the edible snail which feeds on vine-leaves—without the animal showing any trouble. Such a dose would be fatal to higher animals.

**THE ITALIAN PHARMACOPEIA.**—Italy has never yet had a Pharmacopeia, and though a committee has been in existence for a long time with the intention of preparing one, it seems to make no progress with the work. A conference of the committee was recently called at Rome, when only eight out of the 16 members attended.

**THE STATEMENT OF the commerce of Ceylon up to March 11** shows a considerable increase in the export of baled cinnamon, but a large decrease in that of chip cinnamon. Coconut oil shows an immense increase in export. In five months and a half the exports of cinchona bark have reached 87,437 lbs.—*Colonies and India*.

**ENGLISH CHEMICAL APPARATUS.**—The new laboratory of the Polytechnic School at Aachen, Prussia, lately received from the Patent Plumbago Crucible Company, of Battersea, a full assortment of crucibles, melting and muffle furnaces, assay muffles, scorifiers, &c. A few years ago such goods, instead of being obtained from England, would have been supplied from Saxony or France.

The *Montreal Herald* records, among the "incidents" of the celebration of the Queen's birthday there, that Messrs. H. Sugden Evans & Co., wholesale druggists, furnished the troops on the ground with lime-juice during the day. "This kind act is deserving of grateful remembrance, and there can be no doubt whatever that those who benefited by the kindness of these gentlemen will not soon forget the generosity which prompted this praiseworthy act."

**LAVOISIER'S CHEMICAL APPARATUS.**—At the sitting of the Academy of Sciences, on April 21, Professor Truchot, of Clermont Ferrand, reported the results of a careful inspection of Lavoisier's chemical apparatus, which is still in the possession of his heirs, and is well preserved. Some documents found prove that Lavoisier was the author of the work on the distillation of sea water, published anonymously in England, and attributed to Magellan.

**THE POST OFFICE AND NEWSPAPERS.**—A novelty has been introduced by the French Post Office in the authorisation by the Department of the receipt of subscriptions for any French journal by the postmasters throughout the country. From the beginning of this month subscriptions may be paid at any post office for any journal, and the postmaster will give an official receipt to the subscriber, passing on the name and the amount to the office of the journal. A commission of 3 per cent. is fixed as the payment for the office, and most of the Parisian journals charge themselves with the trifling loss. This is probably in France a clever scheme to ensure a self-registering thermometer of political variations in public opinion; but the convenience is so obvious that we hope the British Postmaster-General will soon follow the example.

**FRENCH PHARMACY LAW.**—M. de Calombet, Mayor of Langogne, has been suspended from his office for two months on the ground that he had connived with a local convent to deceive the authorities as to the appointment of a pharmacien to superintend the preparation and sale of medicines at that convent. A pharmacien had complained of the illegal exercise of pharmacy by the convent; an inquiry was made, and an order issued for the appointment of a properly qualified pharmacien; the convent had chosen, and the mayor had commended, a person who was engaged in a similar capacity in a monastery in another department, and who could do nothing but lend his name. This attempt at evasion was thought deserving of the severe reprimand administered by the Prefet.

**A DENTAL MURDER IN SAN FRANCISCO.**—A curious murder which occurred at San Francisco in April last has caused a sensation among the dentists of America. It appears that the Goodyear Vulcanite Company claim a royalty of \$35 per annum from every dentist in the United States who uses their product, and it also seems that every dentist necessarily must use that product. They employed a man named Josiah Bacon to travel through the country collecting the dues, and Bacon added to the dislike which the circumstances of his profession inspired by a manner which was the reverse of conciliatory. One man, Dr. Chalfont, had had his practice twice broken up by legal actions which Bacon had brought against him—once in Wilmington, Del., and again in St. Louis. He had now removed to San Francisco, and Bacon had already threatened a new action. On a Sunday morning Chalfont sought his opponent at his hotel, met him at the door of his chamber, and shot him dead. For some time the murder was a mysterious one, but Chalfont, a few days later, surrendered, declaring that the act of shooting was quite unpremeditated, and was the result of a sudden impulse, induced by irritating and threatening language used by Bacon. The dentists of California, and also of other States, are subscribing to aid Chalfont's defence.

### Materia Medica.

#### CASTORUM.

DR. HAGER thinks the time has come when castorum might be omitted from the German pharmacopœia. As an animal secretion it is unworthy of use, and its medical value he considers below that of valerian. It has been omitted from the Austrian pharmacopœia.

#### FALSE ANGUSTURA AND POMEGRANATE ROOT BARKS.

The *British Medical Journal* gives some particulars of a trial for homicide which has recently taken place at Avallon in France, in consequence of the poisoning of a patient by mistake. M. R., a pharmacien at Avallon, sold to Dr. L., a medical practitioner in the same town, a quantity of false angustura bark instead of pomegranate root. Dr. L., misled by a certain degree of resemblance between the two substances, and believing that he was using pomegranate root, made an infusion of the substance and gave it to a patient, who died in consequence of taking it. An action for homicide by imprudence was brought against the



*pharmacien* and the doctor. The tribunal at Avallon and the Court of Appeal at Paris decided that both were guilty. They refused to admit the plea that Dr. L. might have been misled by the similarity of the two substances, alleging that he ought to have noticed that the infusion which he prepared had not the ordinary appearance of infusion of pomegranate bark, and emitted an unusual odour; and that his suspicion ought to have been excited by the symptoms produced in another patient to whom he had given the same medicine a few days previously. The local tribunal fined M. R. 200f., and Dr. L. 25f. The Court of Appeal added to the fine on the *pharmacien* a sentence of imprisonment for 15 days, and increased Dr. L.'s punishment to a fine of 200f.

#### THE SAW PALMETTO.

IN the American Journal of Pharmacy for April, Dr. J. B. Read, of Savannah, Georgia, United States, describes the medicinal and economic uses of the saw palmetto, *Sabal serotina*. These plants form a belt of almost impenetrable scrub for nearly 100 miles on the coast of Florida. The leaves form a durable thatch, and are sold for paper stock. The roots are easily made into scrubbing brushes, and their ashes contain much potash. The drupes ripen in October and November. Their taste is at first very sweet; an acrid pungent sensation then spreads over the fauces, nasal mucous membrane, and larynx, and is followed by a feeling of smoothness, as if the parts had been coated with oil.

If the expressed juice is left for a few days it separates into three layers, "first a yellow volatile oil, next a thicker greyish brown fixed oil, and then a yellowish watery fluid," richer in saccharine matter than cane juice.\*

This fluid yields, on evaporation, a rich golden syrup, which neither ferments nor candies. When the drupes are boiled in water the volatile oil fills the atmosphere to a great distance with its pungent vapour, causing dizziness and headache in those in the immediate neighbourhood. The residue of the seeds and husks is greedily eaten by many animals, and fattens them quickly. The peculiar soothing effect on the mucous membrane has been utilised in troublesome coughs. The fruit is also a remarkable sedative and diuretic. It has been used with benefit in cardiac asthma, phthisis, chronic bronchitis, and dilation of the bronchial tubes. Its action in catarrhal affections is rapid and permanent. A cold in the head may be abated by two or three doses.

While the palmetto drupes are ripe, the carnivorous and omnivorous animals fatten so rapidly that they become unwieldy. Their fat, however, consists chiefly of olein, and will not render into lard.

### Medical Gleanings.

**POVERTY OF THE ENGLISH LANGUAGE.**—This is from the *British Medical Journal*:—The *soirée* of the Pharmaceutical Society was held at the South Kensington Museum on Wednesday evening. It was very largely attended, and there was a very agreeable *réunion*, which was as usual enlivened by the strains of excellent music. The *locale* offers at the present moment many features of unusual interest.

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**A PLAGUE OF DOCTORS.**—The "Medical Students' Register" for 1879 gives the statistics of registration of medical students throughout the United Kingdom since 1865. In that year a total of 582 students were registered in England, Scotland, and Ireland. In 1878 the total was 1,734. This rate of progress is satisfactory for the professors, but the public may look at it from a double point of view. These 1,734 doctors, when fledged, must live, or at least they will fancy that they see the necessity themselves, and to ensure this condition they will have to import or invent a variety of new diseases. Fortunately for them, the delicate construction of the human body, the suppleness of the Greek language, and, best of all, the nervous phantasies of would-be patients are capable of indefinite extension.

\* The facts thus described can hardly bear the interpretation given them. A volatile oil which would separate on standing from a fixed oil has, we believe, still to be discovered. The substance in question is evidently of much interest.—ED. C. & D.

Two medical students in London have, during the past few days, committed suicide through nervous excitement consequent upon excessive study in preparing for examinations. One of the deceased was a son of the well-known Birmingham surgeon, Mr. Oliver Pemberton, and was a St. Bartholomew's student; the other was Mr. Attwood, a St. Thomas's student. Much sympathy has been drawn forth for the friends of the deceased by these melancholy occurrences.—*Medical Press*.

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**AN ANTI-ASTHMATIC POWDER.**—The *Practicien* (a new and interesting French medical weekly) gives the following formula, which has been adopted with much success by Dr. de Crevoisier, of Briey. Take equal weights of stramonium, sage, belladonna, and digitalis; crush to about the coarseness of saw-dust, damp a little, and mix in as much nitre as of either of the other substances. Burn a little on a plate, cover with a paper cone open at the top, and let the sufferer inhale the smoke. If the smoke is too abundant, damp the mixture with a little water.

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**HOARSENESS—BORAX AND NITRATE OF POTASSIUM.**—These two salts have been employed with advantage in cases of hoarseness and aphonia occurring suddenly from the action of cold. The remedy is recommended to singers and orators whose voices suddenly become lost, but which by these means can be recovered almost instantly. A little piece of borax, the size of a pea, is to be slowly dissolved in the mouth ten minutes before singing or speaking. The remedy provokes an abundant secretion of saliva, which moistens the mouth and throat. This local action of the borax should be aided by an equal dose of nitrate of potassium, taken in warm solution before going to bed.—*La France Médicale*.

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**TOXIC EFFECTS OF LINSEED MEAL.**—Dr. J. G. Parsons, in the *British Medical Journal*, describes several instances of peculiar sensitiveness to linseed meal. A man who applied it to his leg had his face next day swollen and red, with inflamed eyes. The same man was similarly affected by carrying a parcel of linseed meal in his basket for a neighbour. In the case of a lady who applied a linseed-meal poultice to her infant, the same symptoms occurred, accompanied with severe inflammation of the mucous membrane of the air passages. Dr. Parsons has met with four or five such cases. He thinks this specific action of linseed upon the mucous surfaces may possibly explain its use in affections of the mucous membranes.

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**COLLODION IN SEA-SICKNESS.**—Dr. Laederich, a French physician, highly recommends the treatment of sea-sickness with collodion. This had been the means of warding it off from many who were peculiarly pre-disposed to suffer from it, and had suffered much before. The collodion is applied with a brush in three successive layers on the epigastric region (over the stomach) and the neighbouring parts. It acts in such cases in the same way as in those of peritonitis where it is a powerful anti-emetic. The "Algerian Journal of Medicine" reports another way of treating sea-sickness. M. Velaseo advises injections of 0.005 grain and 0.02 grain of morphine, and says he has experienced its good effects on himself and his family.

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**DANGER OF PODOPHYLLIN.**—Mr. E. W. Forster, M.R.C.S. (Darlington), in the *British Medical Journal*, describes four cases of injury resulting from doses of podophyllin, the dose taken being named in only one case, when  $\frac{1}{4}$  grain taken night and morning three times caused colicky pains and tenesmus for two days. He mentions two cases in which podophyllin pills were supplied by druggists to pregnant women, griping and miscarriage following in both instances. It would be well to remember, adds the writer, that when patients are bothered with their bowels it is not the purgative effects of a medicine that are generally required, but the alternative; so that a half, or may be a quarter, grain of calomel, or one-sixth of a grain of podophyllin, night and morning, will frequently—indeed, almost invariably—produce more beneficial and lasting results than the larger doses.

ARSENICAL POISONING FROM WALL-PAPERS, &c.—The following is a copy of the queries issued to the members of the profession by Mr. Malcolm Morris (of 63 Montague Square, W.), hon. secretary to the committee recently appointed by the Medical Society of London to investigate the subject of arsenical poisoning by means of wall-papers, paint, articles of furniture, and wearing apparel:—1. Have you had under your observation, during the last five years, any cases clearly traceable to arsenical poisoning, produced by wall-papers, paint, articles of furniture, or wearing apparel, &c.? 2. Any cases previous to that time? 3. What were the first symptoms that led you to suspect this form of poisoning? 4. State briefly the prominent characteristics of each case? 5. Were there any external symptoms of irritation? 6. How long was it in each case before the patient recovered health and strength? 7. Were any cases fatal? 8. What article contained the poison? What tests were employed to detect its presence? 9. How many cases occurred in men? How many in women? How many in children?

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AN AMATEUR DRAMATIC PERFORMANCE in aid of the London Homœopathic Hospital was given in St. George's Hall, Regent Street, on June 5, by the Thalian Company. The pieces performed were Mr. Albery's "Forgiven," and Mr. Alfred Wigan's "A Model of a Wife." Among the actors Mr. Alan E. Chambre, the official manager of the hospital, especially distinguished himself, and several other performers by unusual amateur ability deservedly won the favour of the audience. More than 900. was netted for the hospital. The following list of patrons of the entertainment will indicate some of the noble families into which the heresy has made its way:—H.R.H. the Princess Mary Adelaide, Duchess of Teck, H.S.H. the Duke of Teck, the Duke and Duchess of Beaufort, the Duke and Duchess of Westminster; Maria, Marchioness of Ailesbury, the Earl and Countess of Crawford and Balcarres, the Earl and Countess of Denbigh, the Earl of Essex, the Earl and Countess of Dunmore, the Earl of Wilton, the Earl of Albemarle, the Earl and Countess Sydney, Lord and Lady Camoys, Lord and Lady Ebury, Lord and Lady Alfred Paget, and General Lord George Paget, K.C.B.

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THE TRUSTEES of the Homœopathic Hospital have narrowly missed losing the benefit of Dr. Quin's legacy, and the history of that gentleman's experiments in will-making is a little instructive. Among his papers two wills were found, but the later one had never been executed; consequently his final intentions failed altogether. His earlier will, which was dated 1859, gave an annuity of 300*l.* to Lord and Lady Cosmo Russell, or to either survivor, if he or she did not re-marry, and the remainder of his property to the Homœopathic Hospital so long as its fundamental law should be maintained in strict purity. In the event of such a contingency the property was to go to other London charities, *not medical*. The only fundamental law of the hospital appears to be that its medical officers shall also be members of the British Homœopathic Society. Subsequently he seems to have scored out the legacy to the Russells, and had written in the margin a note stating that he had revoked the clause. But this revocation had not been attested by two witnesses as the law requires, and as the writing was still legible, the Court declared it must stand. Fortunately, however, for the hospital, it turns out that the surviving party has re-married, and has thereby forfeited her claim. Some legacies to servants had also been inserted, as the Court believed, after the signature of the will, and these were therefore disallowed. The moral of the story is not so much that which the President of the Probate Court tried to draw from it, that everyone should engage a lawyer to draw his will, but it merely enforces the simple lesson which will-makers should never forget, that any and every addition to a will must be attested by two witnesses.

TO REMOVE STAINS.—Boiling water will remove tea stains and many fruit stains. Pour the water through the stain, and thus prevent it from spreading over the fabric. Ripe tomatoes will remove ink and other stains from white cloth, also from the hands.

## Clippings and Pickings.

ARISTOTLE, Davy, Dalton, and Scheele were all druggists.

AN American medical certificate opens thus: Name of deceased, Wight; colour, do.

THE difference between a hill and a pill is that the hill is hard to get up and the pill is hard to get down.

A PATENT, applied for but not proceeded with, by Mr. J. Law, covered the use of the sulpho-ricinoleate and sulpho-oleate of soda in dyeing turkey-red.

TO BLEACH LINEN.—A teaspoonful of turpentine boiled with white clothes will aid the whitening process. This is due to the formation of hydroxyl.

STARCH.—Boiled starch is much improved by the addition of a little spermaceti, or a little salt, or both, or a little gum arabic.

THE *Western Times* states that Mr. Thomas Andrews, of Guildford, despatches young trout to great distances in "tarboys (*i.e.*, medical stone bottles)!"

"Now, Willie, do have a little courage. When I have a powder to take I don't like it any more than you do, but I make up my mind that I will take it, and I do." "And when I have a powder to take," replied Willie, "I make my mind up that I won't take it, and I don't."

NINETY-FIVE THOUSAND pounds of cinchona bark were exported from Ceylon between October 1, 1878, and April 8, 1879. A company, styled the "Hautane Coffee, Cocoa, and Cinchona Company," has been started in the island, with a capital of 50,000 rupees.

"HAVING HIM."—Old Salt: "Too old to manage a boat? I can row, steer, scull, manage a sail—" Old Doctor: "Yes, but an automaton could do all that. I believe a man is only an automaton after all." Old Salt: "Could a tomyay ton catch the runatiz?"—*Fun*.

THE latest quack medicine in the States publishes a splendid testimonial, as follows:—"Dear Sir,—Two months ago my wife could scarcely speak; she has taken two bottles of your 'Life Renewer,' and now she can't speak at all. Please send me two more bottles; I wouldn't be without it."

POST HOC, PROPTER HOC.—A man in one of our hospitals was suffering from pneumonia. The physician in attendance took the temperature of his body several times daily by a clinical thermometer. When convalescence was assured these experiments were discontinued, but the patient begged that the observations should be renewed, for, he said, nothing had ever given him so much relief as those little machines.

TO BE SOLD.—The following advertisement appears in a recent number of the *Medicinisch-Chirurgisches Centralblatt*:—"Through the death of the late proprietor, a good practice (surgery) in a wealthy part of the country is to be disposed of, either by sale or lease. The present owner, daughter of the deceased, is young and single, and would not object to marriage with the buyer or tenant, if suitable arrangements were made. Address, &c."

ANCIENT EYE SALVE.—In the discoveries made at Uriconium a patent medicine was brought to light, or rather, says Dr. Winter, "The seal of the physician who vended it"—an eye salve, marked, like Rowland's Macassar, with his name, to prevent "unprincipled imitation," as follows:—"TIBERII CLAUDII MEDICI DIALIBANUM AD OMNE VITIIUM Oculorum EX OVO." Translated as "The dialibanum of Tiberius Claudius, the physician, for all complaints of the eyes, to be used with egg."

TO REMOVE RUST FROM STEEL.—Steel which has rusted can be cleaned by brushing with a paste composed of  $\frac{1}{2}$  oz. cyanide potassium,  $\frac{1}{2}$  oz. Castile soap, 1 oz. whiting, and water sufficient to form a paste. The steel should first be washed with a solution of  $\frac{1}{2}$  oz. cyanide potassium in 2 oz. water. To preserve steel from rusting, a good method is to paint it with melted caoutchouc, to which some oil has been added. The caoutchouc must be melted in a close vessel to prevent its burning, and should be frequently stirred. It is also said that dipping the steel in a solution of common soda (about 1 in 4) will preserve it from rusting.



TO SOFTEN LEATHER.—Kerosene will soften boots or shoes which have been hardened by water, and render them as pliable as when new. Kerosene will make tin teakettles as bright as new. Saturate a woollen rag and rub with it. It will also remove stains from clean varnished furniture.

#### GLYCERINE JELLY.—

Calves foot jelly (Crosse & Blackwell's) ..	..	2 parts.
Warm and add—		
Glycerine .. .. .	..	1 or 2 parts.
Essence of eoelineal .. .. .	..	q. s.
Perfume .. .. .	..	q. s.

The above makes a perfectly transparent emollient jelly, which keeps good any length of time in stoppered or corked bottles, but evaporates in bottles closed by screw-caps.—*Canadian Pharmaceutical Journal.*

LIME-JUICE CORDIAL.—The following is an excellent recipe:—Take of glucose, 36 lbs.; cane sugar, 108 lbs.; lime juice, 14 gallons; spring water, 23 gallons; essential oil of orange,  $\frac{1}{2}$  fluid oz.; essential oil of nutmeg,  $\frac{1}{2}$  fluid oz.; salicylic acid, 2oz. Place the glucose and cane sugar in copper pans, with a sufficient quantity of water, and dissolve with the aid of a moderate heat. To the syrup thus prepared the essential oils are added and thoroughly incorporated. The salicylic acid is next incorporated with the syrup, and the whole combined with the lime-juice and water. Agitate occasionally for 24 hours, and strain through fine muslin. The product should measure 54 gallons, or one hogshhead.

MAKING PENCIL-MARKS INDELIBLE.—Pencil-marks are indelible, says the *Papier Zeitung*, on paper preserved as follows:—Any ordinary drawing-paper is slightly warmed, and then rapidly and carefully laid on the surface of a bath consisting of a warmed solution of bleached colophonium in alcohol until the entire surface is moistened. It is then dried in a current of hot air. The surface of the paper becomes smooth, but readily takes the impression of a lead-pencil. In order to make the lead-pencil marks indelible, the paper is warmed for a short time on a stove. This method may prove valuable for the preservation of working drawings when a lack of time will not permit the draftsman to finish them in ink.

COD-LIVER-OILY LITERATURE.—Mr. Herbert Spencer was one of the witnesses examined by the English Copyright Commissioners some time ago. He was asked whether he did not think that if any publisher might reproduce his works by paying him (the author) say 10 per cent. royalty, an increased sale consequent on lower prices would not probably yield him a larger return. He said he thought not. The reduction in selling prices so effected would not be more, he calculated, than about 15 per cent., and he said: "I am of opinion that a reduction of the price of one of my books by that amount would have but a small effect upon the sales, the market being so limited. Let me use an illustration: Take such a commodity as cod-liver oil, which is a very necessary thing for a certain limited class. Suppose it is contended that, out of regard for those to whom it is so necessary, retailers should be compelled to take a smaller profit, and you reduce the price by 15 per cent. The consumption would be very little influenced, because there would be none except those who had it prescribed for them who would be willing to take it, and they must have it. Now, take one of my books, say the 'Principles of Psychology.' Instead of calling it '*caviare* to the general,' let us call it cod-liver oil to the general; I think it probable that if you were to ask ninety-nine people out of a hundred whether they would daily take a spoonful of cod-liver oil or read a chapter of that book, they would prefer the cod-liver oil. And if so, it is quite clear, I think, that no lowering of the price by 3s. out of 20s. would in any considerable degree increase the number of persons who bought the 'Principles of Psychology.' The class is so limited and so special that there would be no increase of profit of a considerable kind in consequence of an increased number sold."

Q. But are there not many people who would have benefited by cod-liver oil who cannot get it at present because of the price?

A. I think in all those cases in which they would be benefited they get it by hook or by crook when it is prescribed for them.

## Trade Notes.

MR. HENRY SEYMOUR has succeeded to the business for the last three years carried on by Mr. S. Smith, chemist and druggist, at 1 Wellington Place, Easton Road, Bristol.

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IN THE advertisement of Dennis's Lincolnshire pig powders, in our last, the quotation of 18 per cent. discount was an error. It should have read 10 per cent. The advertisement now appears corrected on page 47.

\* \*

THE PATENT PLUMBAGO CRUCIBLE COMPANY, of Battersea Works, London, have recently shipped to Colorado a quantity of muffles and scorifiers, for use at the extensive smelting works of Professor Hill.

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MR. G. S. MUMFORD, of the Newcastle Granary and Steam Mills, Farringdon Road, E.C., whose manufacture of crushed linseed is known to chemists and druggists, will henceforth carry on business in his own name instead of as "Peter Mumford & Son," as it has long been styled.

\* \*

THE LIEBIG'S EXTRACT OF MEAT COMPANY have declared a dividend of 10 per cent. per annum, and in addition they have presented 6,000 bonus shares from the reserve fund to the shareholders. There are 18,000 shares in the company, so that every owner of three shares will receive one additional share as a free gift.

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A GOOD IDEA has occurred to Mr. Crawshaw, of Fann Street, Aldersgate Street, which is, to put up penny packets of insect powder for chemists' sale. We hear that there is great consternation in insect-land at the announcement that the nimble penny is to be commissioned to take the field this summer.

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THE report of the Cheque Bank up to February 28, 1879, shows a steady augmentation of business. The bank does not yet quite pay its working expenses, a loss of 1,932l. being shown for the year; but this is better by 1,400l. than in the previous year, and by 1,900l. than in 1877. The number of cheques sold during the year was 366,883, against 308,996 in the previous year, and 233,618 in 1877.

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THE SILICATED CARBON FILTER COMPANY, of Battersea, under orders from the Admiralty, supplied a large number of their pocket filters for the use of the Marines who sailed in the *Jumna* for the Cape on the 6th inst. We are also informed that Messrs. Schwebbe & Co. have had their aerated water manufactories in London, Liverpool, and Glasgow fitted throughout with silicated carbon main supply filters.

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AMONG THE EXHIBITS for the Sydney Exhibition which have come under our notice, we may mention a large display of perfumery, and especially of his new ozonised perfumery, from the manufactory of Mr. Rimmel; a fine collection of opium alkaloids, from Messrs. T. & H. Smith, of Edinburgh and London; some novelties and a grand collection of the invincible "Daughter's" marking-ink, from Mr. J. Hickisson and a collection of brushes and various perfumery, from Messrs. John Gosnell & Co.

MR. EDWARD HURLEY, of Reading, has purchased from Mr. W. Herbert his business at 137 Lewisham High Road.

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PETROLINE HAIR CREAM.—It was discovered some time ago, or at least it was asserted, that petroleum had a most remarkable effect in the reproduction of hair in bald places, and many authorities have recommended it as a safe and useful application to the hair. Messrs. Nerwich & Co., of Wynne Road, Brixton, take advantage of its properties in this respect, and prepare, with petroleum as the principal ingredient, a cream which, while retaining the distinctive odour, is by no means disagreeable, and is even refreshing for occasional use. We have had no opportunity of testing its stimulant virtues.

\* \*

DR. BILLING'S INSTANTANEOUS DISINFECTANT.—This product is securing considerable favour. A letter in the last number of the *Homoeopathic Review* from Dr. George Wyld commends it very highly, and from several other quarters testimony to its efficacy has been given. It is a concentrated solution of several chlorides, and being a clear liquid, of a pale green tint, leaving no stain, odourless, and stated to be harmless. It is capable of application in all conditions, and from one or two trials we have made of it we believe it to be a thoroughly efficient deodoriser.

## Obituary.

BAYLY.—On April 27, 1879, Mr. Henry Bayly, chemist and druggist, Richmond, Surrey. Aged 39 years.

BLUNT.—On April 21, at 1 Clifton Villas, Battersca, Jane, the beloved wife of R. G. Blunt.

BROOKE.—On May 17, Mr. Charles Brooke, F.R.S., aged 74, the author of the well-known "Elements of Natural Philosophy," founded on a work by Dr. Golding Bird. Mr. Brooke was the inventor of the apparatus for obtaining photographic records of magnetical changes, employed for many years at Greenwich and other observatories. He was a frequent, if not voluminous, contributor to scientific literature, and an active member of several scientific societies. For many years he was one of the surgeons of Westminster Hospital, and was a consulting surgeon of that institution at the time of his death.

CARR.—On May 6, 1879, Mr. Bennett Carr, chemist and druggist, Eekington, Derbyshire. Aged 69 years.

EDWARDS.—On May 17, 1879, Mr. Frederick Hezekiah Edwards, chemist and druggist, Lambeth Walk, S.E. Aged 32 years.

FOX, DR. TILBURY.—On June 7, aged 43, Dr. Tilbury Fox. He was the author of "Skin Diseases of Parasitic Origin their Nature and Treatment," published in 1863; "The Classification of Skin Diseases," published in 1864; "Skin Diseases; their Description, Diagnosis, and Treatment," which reached its third edition in 1872; "On Eczema, and incidentally the Influence of Constitutional Conditions in Skin Diseases," published in 1870; "The Atlas of Skin Diseases," published in 1875; and "The Epitome of Skin Diseases," which reached its second edition in 1877. He was joint author with Dr. Farquhar of a scheme, prepared for the India Office, for obtaining a better knowledge of the endemic skin diseases of the East. In 1875, with Dr. Farquhar, he issued a report upon the endemic skin diseases of India. He contributed various papers and clinical lectures on skin diseases to many of the medical papers.

GLADDING.—On May 23, 1879, Mr. William Bennett Gladding, chemist and druggist, Brook Street, E. Aged 51 years.

GRISEBACH.—Dr. August Grisebach, Director of the Botanical Garden at Göttingen, died recently in that city. He was one of the first modern authorities on the physiology of plants, and was equally distinguished as a traveller,

author, and academical teacher. By his now classical work on "The Relation of Vegetation and Climate" he became in a sense the founder of the distinct science of plant-geography. Dr. Grisebach was born at Hanover in 1814.

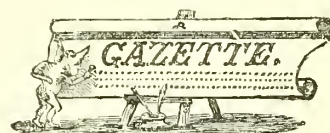
JOB.—On May 18, 1879, Mr. Ananias Job, chemist and druggist, Treville Street, Plymouth. Aged 38 years.

JONES.—On May 2, 1879, Mr. Edward Bowen Jones, pharmaceutical chemist, Lammas Street, Carmarthen. Aged 69 years.

PANK.—On May 10, 1879, Mr. William John Pank, pharmaceutical chemist, City Road, N. Aged 50 years.

VALENTIN.—Suddenly on May 1, William George Valentin, aged 49. He was a native of Neuenburg, in the Black Forest. He came to this country about 25 years ago, and studied under Dr. Hofmann, subsequently becoming senior assistant to Dr. Frankland, at South Kensington. He was well known as a teacher, and his text-books have a deservedly high repute. Some of his friends and students at the School of Mines had intended to present him with a testimonial, but we believe the committee will now seek to obtain an increased amount for the benefit of his widow.

WALKINTON.—On May 25, 1879, Mr. William Walkinton, chemist and druggist, Tenby. Aged 79 years.



## BANKRUPT (IRELAND).

BARBER, ALEXANDER, Coleraine, Londonderry, surgeon and apothecary. May 16.

## SEQUESTRATION (SCOTLAND).

ADDINELL, JOHN, Leith, druggist. May 6.

## LIQUIDATIONS.

BARRETT, SAMUEL, Frizinghall, chemist. May 24.  
CLARKE, THOMAS VINER, Trundley Lane, Deptford, chemical manufacturer. May 30.  
CROSSBY, RICHARD SUMMERBY, Loudon Street and Normanton Street, Derby, chemist. May 12.  
DOBSON, THOMAS OSBORNE, 6 Paradise Street, Liverpool, apothecary. May 7.  
DOWNES, DENIS SIDNEY, 55 Kentish Town Road, surgeon. May 8.  
ISON, JOHN, New Street, Wellington, grocer, hop merchant, and chemist. May 10.  
KITSON, EDWARD JOHN, 51 Broad Street, Worcester, chemist. May 27.  
LEECH, WILLIAM, 16 Victoria Road, Hackney Wick, late 336 Marc Street, Hackney, chemist. May 13.  
LUND, THOMAS, & FLEMING, JOHN LUND, Lancaster, aërated-water manufacturers. May 12.  
MAXWELL, PETER, Boston, physician and surgeon. May 16.  
RICHARDSON, JOHN, 14 Lancaster Street, Hyde Park, and 88 Pimlico Road, Chelsea, baker, trading as Field & Co., at 267 High Holborn, druggist, late 53 Brompton Road, and 58 Rawlings Street, Chelsea, and 21 and 17 Charing Cross, baker. May 26.  
STEAD, SAMUEL, Meanwood Street, Leeds, druggist. May 30.

## PARTNERSHIPS DISSOLVED.

BROWN, SAMUEL SHAW, & Co., 22 John Street, Netherfield Road North, Liverpool, lint manufacturers. May 22. Debts by Roose & Price, 26 North John Street, Liverpool, accountants.  
BURNETT, T., & SON, Bill Quay, Dunston, and Newcastle, chemical manufacturers. January 1, as regards H. J. A. Burnett. Debts by the remaining partners.  
CORBETT & Co., Plaskynaston Chemical Works, near Ruabon, Denbigh, and late Bromley Street and Water Street, Manchester, trading as Athow & Black, chemical manufacturers. March 3. Debts by E. Corbett, jun., and S. J. W. O. Black.  
HINKS, THOMAS, & SONS, Little Bromwich, and Little Green Lanes, Smallheath, colour-makers and manufacturing chemists. May 22, as regards J. Hinks. Debts by R. G. & V. Hinks.  
HORNBY, FAIRBURN & Co., Don Vitriol Works, Attercliffe, near Sheffield, manufacturing chemists. March 1, as regards E. P. Hornby. Debts by J. Fairburn and E. J. Oliver.  
LORIMER & FLETCHER, Holloway Road, Middlesex, manufacturing chemists. May 30. Debts by F. W. Fletcher.  
SMITH, T. & W. H., 17 Walter Street, Liverpool, lard refiners, drysalts, and manufacturing chemists. May 13. Debts by T. Smith.





[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, successor to L. de Fontaine-moreau & Co., 4 South Street, Finsbury, London; and at Paris and Brussels.]

Applications for Letters Patent:—

- Ammonia.**—No. 1481.—W. Müller, of Antwerp, Belgium, merchant, and E. Geisenberger, of Brussels, Belgium, civil engineer. Improvements in means and apparatus for the manufacture of ammonia. Dated April 16, 1879.
- Ammonia.**—No. 1592.—W. Müller, of Antwerp, Belgium, and E. Geisenberger, of Brussels, Belgium, civil engineer. Improvements in means and apparatus for the manufacture of ammonia from the nitrogen of atmospheric air and hydrogen. Dated April 22, 1879.
- Bottle-stoppers.**—No. 1286.—J. Wilson.—A communication from R. H. Brown, of Rouen, France. Improvements in stoppers for bottles, cans, jars, and such-like vessels. Dated April 1, 1879.
- Bottle-stoppers.**—No. 1665.—H. Codd, of 58 King William Street London. Improvements in stopping the mouths of jars and bottles. Dated April 23, 1879.
- Coating Pills.**—No. 1434.—D. Cartner, of Dalston, London, chemist. An improved machine for coating or covering pills. Dated April 10, 1879.
- Filters.**—No. 1582.—J. Grant, of Boston, Mass., United States, engineer. Improvements in filters. Dated April 22, 1879.
- Lathes for Dental Uses.**—No. 1521.—G. H. Jones, of 57 Great Russell Street, Bloomsbury, London. An improvement in lathes for dental and other uses. Dated April 18, 1879.
- Oxidising the Sulphides of Sodium and Potassium.**—No. 1530.—A communication from P. Pauli, of Chemische Fabrik, Rheinau, Germany. An improved process for oxidising the sulphides of sodium and potassium in alkaline solutions. Dated April 18, 1879.
- Securing Bottle Stoppers.**—No. 1412.—J. Shanks, of Townsend Street, Dublin, Ireland. Improved fastenings for securing the corks or stoppers of bottles. Dated April 9, 1879.
- Separating Sulphur from Alkaline Solutions.**—No. 1396.—A communication from P. Pauli, of Chemische Fabrik, Rheinau, Germany. An improved process for separating sulphur or its combinations from alkaline solutions. Dated April 2, 1879.
- Sulpho-cyanides and Ferro-cyanides.**—No. 1359.—H. E. Newton; a communication from J. Teberniac and U. Gunzburg, both of Paris. Improvements in the process of and apparatus for manufacturing sulpho-cyanides and ferro-cyanides. Dated April 5, 1879.
- Advertising.**—No. 1988.—H. A. Reinhold, of Woolwich, Kent, mechanical engineer. An improved method of an apparatus for exhibiting advertisements, show-cards, and the like. Dated May 19, 1879.
- Bottles.**—No. 1960.—S. Canning, of 7 Great Winchester Street Buildings, London. An improved manufacture of glass bottles and apparatus or moulds employed therefor. Dated May 16, 1879.
- Bottles.**—No. 2169.—M. Lumb, of Penrith, Cumberland. Improvements in bottles. Dated May 31, 1879.
- Bottles and Stoppers.**—No. 1991.—T. Wood, of Portobello, North Britain. An improvement in the construction of the mouths of bottles for holding aerated waters and other liquids, in the stoppers thereof, and in the retaining or holding of such stoppers to confine the said liquids. Dated May 20, 1879.
- Bottle-stoppers.**—No. 1718.—W. Geeves, of Cheltenham, Gloucestershire. Improvements in apparatus for stopping bottles. Dated April 30, 1879.
- Bottle and Stoppers.**—No. 1788.—C. F. Wood, of Sheffield, Yorkshire. Improvements in the construction of bottles and jars to facilitate the stopping thereof, and in stoppers for bottles and jars, and in apparatus for filling the said bottles. Dated May 6, 1879.
- Bottle-stoppers.**—No. 1861.—H. Barrett, of Hampton, Middlesex. Improvements in stoppering bottles for containing aerated or gaseous liquids, and tools or appliances therefor. Dated May 10, 1879.
- Bottle-stoppers.**—No. 1895.—H. Barrett, of Hampton, Middlesex, and J. Bailey, manager of the Indiarubber, Guttapercha, and Telegraph Works Company (Limited), of Silvertown, Essex. Improvements in the manufacture of stoppers for bottles for containing aerated or gaseous liquids. Dated May 13, 1879.
- Bottle-stoppers.**—No. 1966.—W. Battersby, of Ardwick, near Manchester. Improvements in stoppering bottles to contain aerated or fermented liquids. Dated May 16, 1879.

**Colouring Matters.**—No. 1864.—R. Metholda, chemist, of Atlas Works, Hackney Wick, London. The production of colouring matters from the sulphonic acids of the phenols, and the diazo-sulphonic acids of the amines. Dated May 10, 1879.

**Dephosphorisation of Iron.**—No. 1698.—H. A. Bonneville.—A communication from E. André, of Ehrenbreitstein, Germany, engineer. A new or improved process of dephosphorisation of iron. Dated April 30, 1879.

**Electra Compound.**—No. 2016.—T. Sanders and L. Danckwerth, both of St. Petersburg, Russia. Improvements in the manufacture of a new compound or substance to be called "electra compound." Dated May 21, 1879.

**Extracting Fatty Matters from Substances.**—No. 1673.—J. J. Sacks, of Barrow-in-Furness, Lancashire. Improvements in the extraction of fatty matters from substances or materials containing such fatty, oily, or greasy matters. Dated April 29, 1879.

**Metallic Sulphides.**—No. 2006.—J. B. Spence, of Lombard Street, London, merchant. Improvements in the treatment of metallic sulphides. Dated May 20, 1879.

**Purification of Cod-liver Oil.**—No. 1970.—J. Fordred, of Tottenham, Middlesex, technical chemist. Improvements in the treatment and purification of cod-liver oil. Dated May 16, 1879.

**Treating Metallic Sulphides.**—No. 1855.—J. B. Spence, of Lombard Street, London, merchant. Improvements in the treatment of metallic sulphides and the products derivable therefrom. Dated May 9, 1879.

Letters Patent have been issued for the following:—

**Alkalies.**—No. 4188.—E. W. Parnell, of Liverpool, Lancashire, manufacturing chemist. Improvements in the manufacture of alkalies. Dated October 21, 1878.

**Ammonia.**—No. 4353.—J. Inray; a communication from H. J. E. Hennebutte, of Auglet, near Bayonne, France, and C. J. F. R. de J. Mesnard, of Biarritz, France. Improvement in the treatment of ammoniacal liquor for the separation of ammonia compounds therefrom. Dated October 29, 1878.

**Bottle-stoppers.**—No. 218.—C. F. Wood, of 10 Langdon Street, Sheffield, and J. Wilkinson, of Swinton, Yorkshire. Improvements in the stoppering of bottles, and in apparatus for adapting bottles thereto. Dated January 20, 1879.

**Bottles and Stoppers.**—No. 4105.—G. Evenden, of Portslade, grocer, and H. W. Stiles, of Brighton, commercial traveller. Improvements in bottles and stoppers. Dated October 16, 1878.

**Bottle-stoppers.**—No. 4194.—B. Hagb, of Glengall Road, Poplar, London. Improvements in stoppers for bottles, and in means for filling bottles provided with such description of stoppers with aerated and other liquids. Dated October 21, 1878.

**Colouring Matters.**—No. 4489.—J. C. Mewburn.—A communication from A. P. Poirrier, manufacturer, D. A. Rosenstiehl, chemist, and Z. Roussin, chemist, all of Paris, France. The production of new colouring matters from phthalamine. Dated November 6, 1878.

**Colouring Matters.**—No. 4491.—J. C. Mewburn.—A communication from Z. Roussin, chemist, and A. F. Poirrier, manufacturer, both of Paris, France. The production of new colouring matters by the reaction of the diazoic derivatives of toluidines and xylydines upon amines, amides, and phenols. Dated November 6, 1878.

**Colouring Matters.**—No. 4490.—J. C. Mewburn.—A communication from Z. Roussin, chemist, and A. F. Poirrier, manufacturer, both of Paris, France. The production of new colouring matters, by the reaction of the diazoic derivatives of uitriline, or other diazoic derivatives, upon amines, amides, and phenols. Dated November 6, 1878.

**Sulphate of Alumina.**—No. 173.—F. Lanr, of Paris, France. Improvements in the manufacture of sulphate of alumina. Dated January 15, 1879.

**Sulphuric Acid.**—No. 705.—W. G. Strype, of Wicklow, Ireland. Improvements in or applicable to apparatus for the manufacture of sulphuric acid and for the purpose of regulating the draught in such apparatus. Dated February 21, 1879.

**Anthracene.**—No. 4517.—J. Hardman, of Milton, Staffordshire, manufacturing chemist, and G. Wischin, of Milton, Staffordshire, chemist. Improvements in the production of anthracene. Dated November 7, 1878.

**Box for Holding Dentifrice Powders, &c.**—No. 4768.—J. H. Johnson.—A communication from W. H. Hall, of New York, United States. Improvements in boxes for holding dentifrice, rouge, burnishing or cleaning powders, or other substances or liquids. Dated November 23, 1878.

**Disinfectants, &c.**—No. 1081.—R. V. Tuson, of the Royal Veterinary College, Great College Street, Camden Town, London, Professor of Chemistry. Improvements in the preparation of materials to be used as disinfectants, deodorisers, and antiseptics, as well as for the destruction of parasites infesting man and the lower animals, and similar purposes. Dated March 19, 1879.

**Phosphates and Manures.**—No. 4452.—S. G. Thomas, of 3 Queen's Road Villas, Queen's Road, Battersea, London. Improvements in the manufacture of phosphates and manures. Dated November 4, 1878.

**Phosphates and Manures.**—No. 4558.—S. G. Thomas, of 3 Queen's Road Villas, Queen's Road, Battersea, London. Improvements in the manufacture of manures and phosphates. Dated November 9, 1878.

**Salts of Soda.**—No. 4737.—A. Cahen.—A communication from le Comté Charles de Monthlanc and Lucien Gaulard, Paris. Improvements in the manufacture of salts of soda. Dated November 21, 1878.

**Treating "Red Oxide" of Iron.**—No. 354.—A. Watt, of 20 Christchurch Terrace, Battersea Park Road, London, chemist. Improvements in treating "red oxide" of iron for the purpose of obtaining therefrom certain useful products. Dated January 28, 1879.

**Treating Toothache, &c.**—No. 4924.—W. Handysides, of Newcastle-upon-Tyne. A medical preparation applicable to the treatment of ticdouloureux and toothache, called "Handyside's electric nerve snuff." Dated December 3, 1878.

Specifications published :—

Postage 1*d.* each extra.

1878.

2776. W. Weldon. Manufacture of soda and potash. 4*d.*  
 3312. J. Rivers. Stoppers and bottles. 6*d.*  
 3334. T. Atkins. Machinery and apparatus for the manufacture of compound carbonaceous materials, &c. 8*d.*  
 3341. J. P. Richman. Manufacture of ammonia. 6*d.*  
 3461. W. W. Brereton. Surgical vice. 6*d.*  
 3525. S. Hallsworth. Treating waste waters. 2*d.*  
 3551. T. C. Stone. Manure. 6*d.*  
 3599. L. Monde. Treating brine for producing carbonates of soda and salt. 2*d.*  
 3614. J. C. Haddan. Bottle stoppers. 2*d.*  
 3618. H. Rawlings. Filter presses. 2*d.*  
 3644. G. J. Stanford. Syringes. 6*d.*  
 3651. J. Worthington. Stoppers for bottles. 2*d.*  
 3660. W. Wright and T. Bintliff. Apparatus for cutting for mixing, or compounding soap, &c. 6*d.*  
 3783. H. Gaskell. Manufacture of alkali. 2*d.*  
 3825. W. Rowlandson. Grinding linseed cake, &c. 2*d.*  
 3844. C. M. Sombart. Producing iodine and bromine. 4*d.*  
 453. A. M. Clarke. Moulds and cores for use in casting steel. 2*d.*  
 2840. P. Spence and T. Illingworth. Manufacture of sulphate of ammonia. 2*d.*  
 3397. H. Kenyon. Purifying coal gas and manufacturing carbonate of ammonia. 2*d.*  
 3621. W. Weldon. The manufacture of alkaline and earth-metal cyanides. 2*d.*  
 3694. R. W. Wallace. Manufacture of sulphate of ammonia. 6*d.*  
 3746. W. White. Filters or filtering material. 4*d.*  
 3884. E. Beanes. Syrup to be used for digestible purposes in food. 2*d.*  
 3917. J. H. Johnson. Apparatus for compressing ammoniacal and other gases, &c. 6*d.*  
 3967. J. Imray. Manufacture of potassa and soda carbonates from potassium and sodium chlorides. 6*d.*  
 4012. G., G. W., and J. Betjemann. Stands for decanters, bottles, jars, &c. 6*d.*  
 4105. G. Evenden and H. W. Stiles. Bottles and stoppers. 6*d.*  
 4131. C. Norrington. Apparatus employed in the manufacture of sulphuric acid. 6*d.*  
 4148. J. C. Stevenson. Apparatus for the manufacture of alkali. 6*d.*  
 4188. E. W. Parnell. Manufacture of alkalies. 4*d.*  
 4228. W. Spence. Colouring matters. 4*d.*  
 4353. J. Imray. Treating ammoniacal liquor for the separation of ammonia liquor for the separation of ammonia compounds therefrom. 4*d.*  
 5255. W. Morgan Brown. Phosphorescent powders, &c. 6*d.*

1879.

156. W. R. Lake. Dental plates. 6*d.*

## ABSTRACTS OF SPECIFICATIONS.

For permission to print the following we are indebted to the courtesy of the *Engineer*:—

**2550. Tooth-picks, DEVICE FOR REMOVING FOOD AND SECRETIONS FROM BETWEEN THE TEETH, T. Reid.**—Dated June 25, 1878.—*A communication.*—(Not proceeded with.) 2*d.*

A curved rod carries a spool of floss silk, which is distended thereon, and the rod is furnished with a handle, by which the silk thread can be drawn between the teeth for removing any food or secretions which may have become lodged therein.

**2750. Volatile Liquids, BARRELS FOR HOLDING, W. R. Lake.**—Dated July 9, 1878.—*(A communication.)* 6*d.*

This consists in a wood-incased metal barrel, the cylinder having inward grooves formed by the outward heads, in combination with the metal heads having their concave sides outward and their edges fitted into the grooves and sealed.

**3157. Corns, APPLIANCE FOR, &c., M. Wilson.**—Dated August 9, 1878. 6*d.*

This consists of an elastic band or bandage, on the top of which is a hole or cavity, and over this cavity is placed a cap, thus forming a receptacle.

**3028. Decayed Teeth, COMPOUND FOR FILLING, &c., T. Fletcher.**—Dated July 30, 1878. 2*d.*

This consists in the use of phosphate or pyrophosphate of alumina, or magnesia, or pyrophosphate of lime, separately or together in a compound.

**3029. Paper Bag FOR DRUGGISTS' POWDERS, &c., A. M. Clark.**—Dated July 31, 1878.—*(A communication.)* 6*d.*

The bag is formed from an oblong rectangular blank. A crosswise slit is cut in each side of the blank at a distance of about one-third the width of the blank. The end of the blank which is farthest from the slits is then notched at each side, thus leaving a narrow central projecting end piece, which serves as a flap to close the lower end of the bag. The side portions, included between the slits and notched ends, are pasted, folded inward, lapped, and pressed together. The end projection is next folded and pasted down on the lower end of the tube thus formed.

**3352. Lozenges, J. Wilson, jun.**—Dated August 24, 1878.—*(Not proceeded with.)* 2*d.*

The lozenges are cut out into different forms which fit into each other, and bear a part of a map or picture impressed or painted thereon, so as to form a puzzle map.

**2897. Sugar, Meat, &c., PRESERVATION OF, C. Perrot.**—Dated July 20, 1878. 4*d.*

To preserve sweet matter, a product composed of the following materials is added to about 300 kilogrammes or litres of the saccharine matters to be preserved:—Cream of tartar, 40 grammes; citric acid, 30; alum, 20; tannin, 10; salicylic acid, 15. For wine the product consists of:—Cream of tartar, 15 grammes; tartaric acid, 10; tannin, 5; salicylic acid, 25, added to about 300 litres of wine. For alimentary provisions:—Ordinary salt, 30 grammes; saltpetre or nitre, 17; powdered sugar, 15; salicylic acid, 25, is added to 500 kilogrammes of the matters to be preserved. For the preservation of dry vegetables, cereals, fodder, or grain, the product consists of:—Wood ashes, 50 grammes; sulphur, 25; tannin, 10; tartaric acid, 10; salicylic acid, 25, to about 500 kilogrammes of the matters to be treated.

**2979. Albuminous Biscuits, J. Taylor.**—Dated July 26, 1878. 2*d.*

The biscuits are composed of the liquor in which the best joints of beef are stewed for about seven hours, then mixed with the best wheaten flour, made up, and afterwards baked.

**3469. Socks for Boots, &c., T. J. Smith.**—Dated September 2, 1878.—*(A communication.)* 6*d.*

This consists in interposing in the thickness of the sock a layer of paper, cloth, or linen, on which mustard or other preparation capable of promoting circulation of the blood has been spread or pasted.

**3341. Ammonia, MANUFACTURE OF, J. P. Rickman.**—Dated August 24, 1878. 6*d.*

This consists in the manufacture of ammonia by blowing air and steam through heated oxidisable matter contained in retorts.

**3713. Galvanic Batteries, J. D. Adams.**—Dated September 19, 1878.—*(A communication.)* 6*d.*

Chloride of lime is used as the depolarising agent; the zinc pole is plunged into a solution of common salt and water, the carbon pole is surrounded with chloride of lime contained in a porous jar, and is formed of a stick of carbon with several turns of copper wire soldered upon the upper part, which is first saturated with paraffin to prevent the ascension of liquid up to the metal. The other end of the wire is soldered to the zinc pole of the next element. The zinc pole is formed of a thin sheet rolled around the jar and having a strip extending upwards for the copper wire of the next element. The battery is enclosed in a wooden box hermetically sealed, each element being in a separate square cell.

To SMOOTH FLAT-IRONS.—Beeswax and salt will make flat-irons as clean and smooth as glass. Tie a lump of wax in a rag, and keep it for that purpose. When the irons are hot, rub them with the wax-rag, then scour with a paper or rag sprinkled with salt.



# EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

**Deposit of Money.**—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We shall acknowledge receipt to both parties by post-cards, and shall only pay it away on the advice of the remitter. Whether returned to him or paid to the seller, we shall charge a commission of 2½ per cent. on any money thus passing through our hands, and not less than 6d. on any single transaction. This arrangement should entirely prevent any cause of complaint or dissatisfaction arising out of this section of THE CHEMIST AND DRUGGIST.

## FOR DISPOSAL.

Child's earl; offers wanted. 25/13.  
Window jars, specie jars, and vases. 25/16.  
Handsome specie jar, gold labelled "Honey," good as new, price 10s. 6d. 24/16.  
Over 60s. worth good-selling patents; cash offers. 19/16.  
One gross Grosvenor's caprine plasters; 51s. delivered. 8/14A.  
Twelve bottles genuine Carlsbad salts, fresh; 20s. 8/14B.  
Six 2-gallon pear-shape carboys, five cut stoppers, one plain. What offers, all or part? 39/14.  
Mineral water bottles, sodas and lemons, large, 13s. gross, split ditto, 10s. 6d. Barnsbury, Glass Co., 5 Little Britain, E.C.  
Essence lemon, &c., advertised last month, still on offer; bargains. B., 11 Bridge Street, Goole.  
15 doz. large teats, 11s.; 24 doz. small teats (Mather's), 9s.; carriage paid. Apply to Rob. Chalmers, Druggist, Greenock.  
Excellent microscope in mahogany box, three powers; only 10s. 6d. Higginson, Newferry, Birkenhead.  
Half-gallon tincture press on feet, fig. 2, page 126, Maw's Catalogue; price 12s. 6d. A. Dock, Cambridge.  
Nine dozen 2-oz. and 1 2½-oz. covered pots, worth 18s., for 9s.; a gallon tincture press, cost 35s., for 21s. Connor, Chemist, Winchester.  
Three sets mahogany drawers, shelves, bottles, stock bottles, cheap; particulars sent free. 19/12.  
Full-sized shower-bath, with force-pump complete, nearly new, 30s.; lot window carboys, cheap. Floyd, Bury St. Edmunds.  
Cheap.—Muter's "Chemistry," Smith's "Pharmaceutical Guide," student's microscope, cost 5l. 5s., price 3l. 3s. 7/14.  
Latest edition of Bentley and Redwood's "Materia Medica." Ais's Atfield's "Chemistry." Both in good condition. C. & D., 61 Grosvenor Jar, Camberwell, S.E.

Pine's Devon oils, 2s.; delivered at 16s. dozen; four dozen. Thompson, Hanover Street, Liverpool.

Quantity of second-hand druggists' fittings, including drawers, bottles, jars, &c., in good condition. Smith, Chemist, Clay Cross.

3½ lbs. Mitcham ol. lavand., 1872, 1873, 1874, for sale, warranted genuine. What offers? Singleton & Rigg, Chemists, Preston.

3 lb ol. lavand. opt. Mitcham, untouched; 50s. Fresson, Chemist, 61 New Road, Southampton.

Quantity of fine wax, fair colour, price 1s. 1d. per lb.; sample free. Herbert Kemp, High Street, Horncastle.

The entire fixtures, show-cases, and utensils of three chemists' shops, price 45l., 60l., 75l. Lloyd Rayner, 333 Kingsland Road, London.  
Southall's materia medica cabinet, good condition; cheap, 18s. E. Wynter, Seaford, Sussex.

Fifty gross ginger-beer corks, sample for one stamp; Scott's Arabian cigarettes, 1s. and 2s. sizes. 34/15.

Sixty 6d. packets Crawshaw's dyes, 12s. 6d.; 24 3d. size, 2s. 6d.; 24 1d. size, 9d. Longley, North Street, Leeds.

Thomson's "Dispensatory," Fergusson's "Practical Surgery," Homeopathic Pharmacopoeia; offers. 19/16C.

For Immediate Disposal.—The bottles, fixtures, cases, &c., &c., of a chemist's shop. Apply to M. E. Foster, 50 Bishopsgate Within, E.C.

Minor students' set of chemical apparatus, reagents, &c., for home preparation for the Minor; a bargain. List and price from J. T. C. Williams, Dolgelly, North Wales.

Dows, Clark & Co.'s ice-cream drink machine, six taps, copper cylinder, extra fittings, all in first-rate condition; a great bargain. Read, 2 Market Terrace, Upper Holloway.

Sale or exchange, 8 or 10 vols. Braithwaite's "Retrospect of Medicine"; invaluable to a chemist if prescribing, or one thinking of emigrating. 23/14.

What offers for Quain's "Anatomy," eighth edition, new; Pirrie's "Surgery," third edition, new? Beverley, Chemist, Fife-Keith.

Quantity of good army biscuits, make capital dog biscuits and sell well as such, price 10s. per cwt.; sample free. Herbert Kemp, High Street, Horncastle.

Nearly new, J. Hughes-Bennett's lectures on "The Principles and Practice of Medicine"; 8s., or offers. Sturton & Sons, Peterborough.

Guttapercha sticks for tooth-stopping; a few gross 5s. 6d. cash with order, stamped envelope for sample. Lockwood, Chemist, Sheffield.

Insect powder, fresh ground from flowers; about 300 lbs., 1s. 5d. lb.; cash with order, two stamps for sample; what offer for the lot? Lockwood, Chemist, Sheffield.

The "Green Book," by Culverwell, on Impuissance, Syphilis, &c., coloured plates, scarce, 5s. 6d.; excellent opera glass, 7s. 6d.; telescope, 3s. 6d.; each half-cost. "Medicus," Newferry, Birkenhead.

About 200 glass cases, new and second-hand, from 1s. 3d. to 20l. each; about a dozen sets of ointment jars, in various colours, job. R. Tomlinson, 15 St. Paul's Square, Birmingham.

Urgent.—Stock, fixtures, bottles, and utensils, for 50l. cash; shop and house (rental low) can be let, so fixtures, &c., need not be removed; rare and exceptional offer. 39/15.

30 lbs. gold bronze, three shades, 1-oz. packets. Offers wanted. Sample packet, 10 stamps. Owen, Chemist, 153 Great King Street, Birmingham.

A No. 1 6-syphon bottling-machine for sale, only been used a few times, suitable for soda-water, sauce, &c.; price 50s., cost five guineas. Fardon, Chemist, Maidstone.

Two gross pound junbe tins, new, flat, 46s.; 12 gross 5il. white spouted homeopathic vials, 3s. 6d. per gross; 7 gross 3il green homeopathic vials, 3s. 6d. per gross. 3/17.

5 cwt. and 10 cwt. platform weighing machine; good iron book safe, Chubb's locks; ½ ton stearine; ½ ton zinc white paint. H., 196 Union Street, Oldham.

Preliminary Examination.—Set of books, including Wills' "Postal System," cheap; owner passed first time. What offers? "Junior," 89 Heywood Street, Moss Side, Manchester.

Y.G.C. glass percolator, graduated to 1 gallon, 25s.; two 24 5-grain pill machines, in good working order, 10s. 6d. each. Reasonable offers or exchanges accepted by W. L. Harvey, Margate.

"Chemistry, as applied to the Arts and Manufactures," 8 vols., cost 80s., price 60s., new; a still, water-bath, and evaporating dish combined, with gas-stove, 15s. J. Tully, Tunbridge Wells.

Materia medica cabinet, 200 specimens, 10s. 6d.; 50 Minor examination questions, 2s.; 30 prescriptions given to dispense at the Minor, 2s. "Chemist," care of Mr. J. Edwards, Petham, Canterbury.

Will positively sell highest bidder.—*Pharmaceutical Journal*, 1871, 1872, 1873, complete; ½-plate camera, lens and stand, perfect order, 35s.; 9 by 7 bellows camera and bath, 1l. Bond, Tiverton.

A complete set of the *Pharmaceutical Journal*, from the commencement, 37 vols., the whole uniformly bound in half calf, in good condition; any reasonable offer will be accepted. Address, M.P. S., 13 Bridge Street, Evesham.

*Pharmaceutical Journal* from commencement of publication to present date: first series, 18 vols., bound in crimson cloth boards, seven vols. second series in scarlet cloth boards, the rest unbound. No reasonable offer refused. Thomas Edge, 54 Shaw Street, Liverpool.

Mather's improved paint and colour mill, in perfect condition and nearly new, cost 3l. 3s. What offers in cash, good patents, or any saleable article? Forty paraffin tubs; offers wanted. Willington, Chemist, Oakham.

A Bargain.—Nine volumes of the *Pharmaceutical Journal*, from the commencement of the enlargement of the journal until the present time, in good condition, unbound, and every number correct. Apply, P. C., care of Mr. Harold, Chemist, Green's End, Woolwich.

Forty-gallon cistern, brass tap, nearly new, 14s.; case Turkey sponges; flat counter-cases, cheap; shellac, &c., ground for making polish, 3d. lb. (stamp for sample); frangipanni and ess. bouquet, double concentrated in Bertrand Frères' original bottles. J. W. Adams, 51 Oxford Street, Salford.

Southall & Dymond's materia medica cabinet (1867), 10s. 6d.; Atfield's "Chemistry," last edition, equal to new, 10s. 6d.; Lescher's "Elements of Pharmacy," quite new, 5s.; Cooke's "Botany," 6d.; Judd's "Decimals and Metric System," 6d.; Lindley's "School Botany," new, 4s. Young, Chemist, Cheddar, Somerset.

A soda-water machine to make 1,000 dozen per day, with gasworks, corking rack, dial, and water ganges; 2½-horse power horizontal steam engine, with 3-horse power vertical boiler, with all mountings, second hand, as good as new. Particulars of N. G. Wilcocks, Bath.

Dentist's vulcauser that will bear any amount of pressure, made with ½-inch wrought copper, with copper lid, so that bursting into fragments is impossible; thermometer, two gun-metal flasks, and clamps, 37. 10s. complete. Richard Cockcroft, Dentist, Mytholmroyd. Reason for parting with it, have others at work.

"B. P.," with additions, 1874; Fowne's "Chemistry," 9th edition; Lescher's "Elements," 4th edition; Pereira's "Selecta," 1s. 6d.; "London Latin Grammar," "Shakespeare," complete, cost 1s. 6d.; 13 Nos. Cassell's "Technical Educator," cost 8s. 5d. What offers for any of the above; all equal to new. J. Jupp, Tandridge, Godstone Station.

Fifty questions asked of a successful student at the last Minor, 2s.; 30 prescriptions (catch and difficult) given to dispense at Minor during past twelve months, 2s.; fresh botanical specimens of medicinal and other indigenous plants, including aconite, hellebore, conium, &c., 5s. per set (carriage paid). Saunders, A.P.S., 79 Gaisford Street, N.W.

Splendid large highly-finished binocular microscope; it stands, when closed, 15 inches high, the case being 17½ inches high; it has mechanical stage, with concentric movement, ½-inch triplet, best English ½-inch and 1-inch objectives, with A and B eye-pieces. It was made last September for a medical student, and is as good as new; owing to his father's death he is obliged to part with the instrument. Further particulars of Kemp, 242 Stretford Road, Manchester.

Brass scales, agate bearings, 922 Maw's mahogany slab, weights brass, 11 down; mahogany desk, with glass case, Maw's fig. 13; cigar-case, Maw's 53; also one 4-hole, 19 inch long, upright plate-glass case, 2 feet 3 inches by 2 feet 5 inches deep; west 16 drawers, mahogany, 3 feet by 2 feet; 6 confectioners' glasses, 14 by 8; dispensing scale, Maw's fig. 8; paraffin stove, 3 burners—all the above are in first-class condition; also Smalley's ascending douche. S. Smith, New Swindon.

Nests drawers, newly gold-labelled store and other bottles and jars, all sizes, show-bottles, specie jars, desks, counter cases, pill machines; handsome dispensing screen, 5 feet high, 5 feet 9 long; large handsome lamp and scroll iron, mortars, shelving, cupboards, &c.; handsome cigar counter-case, 12 division gold-labelled, others not labelled; tobacco jars; sheet of plate-glass, in mahogany frame, 5 feet 10½ high, 4 feet 10½ wide; 2 mahogany doors, glazed with embossed glass; scales, mahogany show-stands, medical hooks, &c., all cheap. Lists sent. 846 Old Kent Road.

A quantity of new blue ointment jars, 6 lbs., 4 lbs., 3 lbs., 1 lb., with gold labels, any names, 25 per cent. off Maw's list; fancy jars, as figs. A and D, gold covers, 6s. 6d., elaborately labelled; ditto, ditto, opaque blue, gold covers, labelled, 11 in. high, 7s. each, worth 13s.; a 4-ft. plate-glass counter-case, fig. 41, 47.; a 6-ft. ditto ditto, as fig. 41, 57.; a 5-ft. 3-in. ditto ditto, as fig. 41, 57.; a 4-ft., as fig. 95, 57.; a 3-ft. 6-in., as fig. 16, 45s.; a 3-ft. 6-in., as fig. 100, 70s.; a 5-ft., as fig. 105, 67.; a 6-ft., as fig. 105, 77.; toothbrush-cases, fig. 52, 30s.; desk and case, fig. 39, 45s.; fig. 21, 65s.; a number of small upright counter-cases, very cheap; the entire fittings of a modern chemist's shop, 707. E. Natali, 207 Old Street, almost opposite Great Eastern Street.

Three very elaborate dispensing-screens, glass case at each end, with silvered plate-glass centre, with marble slab in front, tablets on top "Dispensing Department," silvered plate-glass to back of cases, and shifting-shelves, 3 shelves at back for dispensing-bottles, 7 ft. long, 6 ft. long, 5 ft. 6 in. long, 84, 10s. each, bargains; a very handsome dispensing-screen, as fig. 165, 8 ft. long, plate-glass doors, silvered plate-glass back, shifting shelves, with tablet on top, 97.; 6 ft. do. do., as 161 Maw's list, 71. 10s. E. Natali, 207 Old Street, almost opposite Great Eastern Street, E.C.

A super facia to increase height of shop front, sketch and particulars on application, 16 feet long, with sheet lead roofing, painted in chocolate, with gold, price 35s.; green opaque powder puff jar, with gilt glass cover, labelled in gold, about 14 inches, price 14s. packed; homeopathic case with drawer, in mahogany, price 15s.; 1 dozen of Southall's emulsion of cod liver oil with hypophosphate of lime, retail 2s., price 15s. packed; photographic apparatus, camera alone cost 67. 10s. List on application, owner going abroad, price 57. 10s. packed; whole lot cost 107. Ellis, Chemist, Southsea.

Post Free.—Atfield's "Chemistry," 1869, 6s. 6d.; Paul on "Piles," coloured plates, 2s.; Nicholson's "Manual Zoology," 2 vols. (12s. 6d.) 7s.; Wakefield's "Botany," 173 engraved figures, 2s. 6d.; Lees' "Botany," 186 engraved figures, 3s.; Liebig's "Motion of the Juices," 3s.; Liebig's "Animal Chemistry," 4s.; Liebig's "Familiar Letters," 3s.; Faraday's "Chemical Manipulation," very scarce, 10s. 6d.; Smellie's "Midwifery," the volume of plates, 2s. 6d.; Nisbet's "Obstetrical, Surgical and Infantile Pharmacopoeias," 3 vols., 3s. 6d.; Nelligan's "Skin Diseases," 2s. 6d. (pub. 10s. 6d.); Ycarsley's "Deafness," illustrated, 2s.; Hall's "Diseases Females," coloured plates, 6s. 6d.; Coote's "Syphilis," 3s.; Quincey's "Medical Dictionary," 3s.; Burns' "Diseases Women and Children (16s.) 4s.; Marcet on "Stones," coloured plates (18s.) 3s.; Van Butchell on "Piles," (5s.) 2s.; "Nomenclature of Diseases," last, 2s. 6d.; Pomet's "History of Drugs," many plates, 6s. Alfred Davis, 161 Seven Sisters Road, London, N.

Thomas' "Modern Practice Physic," 3s.; Thomson's "London Dispensary," 3s.; Ellis's "Demonstrations of Anatomy" (published 12s. 6d.), 3s.; Garrod's "Materia Medica," 1878, 8s. 6d.; Chelius's "System Surgery," translated by Prof. South, 2 immense volumes, 10s. (cost 37.); Dobell's "Practical and Scientific Medicine," 2 vols., 10s. (published 17. 16s.); Coulson's "Syphilis," nearly new (10s.), 5s.; "Anatomy and Physiology," 3 vols., plates, 3s. 6d.; Bell's "System Surgery," 6 vols., 6s.; Leake's "Diseases Women," 2 vols., 5th edition, 6s.; Caspar Neumann's "Chemical Works," large volume, 5s.; Smellie's "Midwifery," 3 vols., 5s.; Cullen's "Practice Physic," 4 vols., 4s.; "Dictionnaire de Médecine Française," 6 vols., half calf, 6s.; Quain's "Anatomy," Vol. II., "Nervous System," &c.; 186 wood engravings, 4s. (cost 17.); Watkiss's "Biographical Dictionary" (12s.), 3s.; Young's "Medical Literature (18s.)", 5s.; Walker's "Pronouncing Dictionary" (12s.), 3s.; Ryan's "Medical Journal," 7 thick volumes, 7s. 6d.; New Sydenham Society's Publications, 6 vols., 10s. Alfred Davis, 161 Seven Sisters Road, London, N.

Shop drawers, gold-labelled, with glass knobs, 2s. per drawer, superior 2s. 6d., in all lengths; 12 mahogany dispensing-case screens; 2 handsome dispensing-screens, with mirror in centre and a case at each end; 20 mahogany-top counters, all lengths; 3 nests counter-drawers; 3 poison cupboards; 11 mahogany wall-cases; 8 upright cases, with desks; 2 label-chests; 9 mahogany window-enclosures; 2 handsome embossed silvered plate-glass doors; soda-water stand, as 63 Maw's; sponge-cases, as 90 and 92 Maw's; tooth-brush cases, as 52 and 72 Maw's; quantity complete shop-fittings, in all lengths, as 189, 190, 196 Maw's; 30 specie-jars, great bargains; 80 pear-shape carboys, all sizes; 600 upright and carboy-shape store-bottles; 2,000 stoppered shop-rounds; 850 ointment and extract jars; 60 blue syrup-bottles; 40 engraved acid-bottles; entire contents of a laboratory; 8 pill machines; 6 tincture-presses; counter-scales, as figs. 1, 4, 7 Maw's; 2 250-gall. circular galvanised oil-cisterns; 4 10-gall., 2 40-gall., 1 25-gall. oil-cisterns. Lloyd Rayner, 333 Kingsland Road, London.

Bargains.—Sponge case, fig. 92, 57.; 4-ft. 6-in. dispensing screen, as fig. 40, 37.; a ditto, 40 in. long, 40s.; a very handsome dispensing screen, with glass tablet, as fig. 75, 6 ft. long, fitted with shelves at back, labelled "Dispensing Department," 57.; a ditto, 5 ft. 9 in. long, 57.; a 4-ft. 3-in. mahogany wall-case, as fig. 198, 97.; a 12-ft. mahogany-top cupboard, as under wall-case, fig. 207 Maw's list, 67.; a nest of fittings, as fig. 197, mahogany fronted, 187.; 9-ft. mahogany-top counter, fitted with 20 drawers under, for labels, &c., &c., 67.; 7-ft. 3-in. ditto, 7 drawers, 47. 10s.; a ditto, 5 ft. 4 in., 15 drawers, 47. 10s.; a ditto, 5 ft. 4 in., 23 drawers, 57.; a quantity of mahogany-fronted drawers, glass knobs and gold labels, 2s. 6d. per drawer; a number of deal painted and grained mahogany ditto, 1s. 6d. per drawer. E. Natali, 207 Old Street, almost opposite Great Eastern Street, E.C.

## FORMULÆ.

Two hundred valuable receipts, carefully copied, 30s., exchange 40s. 19/16B.

Teeth extracted; new painless process; particulars of operation. Johnston, at Ward's, chemist, Berwick. Also patent handled teeth-forceps, &c. 16/23.

Eau de Cologne, transparent cement, dentifrice water, lavender water, bay rum, sachet powder, plate powder, baking powder, lemon kali, toilet vinegar, fumigating pastilles; all excellent preparations; formulæ, 3s. 6d. each. "Chemist," 45 Great Charlotte Street, Liverpool.

Eau de Cologne (equal to genuine). Fragrant foaming dentifrice (similar to Floriline); effervescent fruit saline (resembles Eno's); splendid black ink (never corrodes steel pens); marking ink (black or red); golden hair-wash; brilliantine (inseparable); bay rum (splendid imitation); hair colour restorer; pomade for removing and preventing scurf; Kaloderma, or skin beautifier; cherry tooth paste (never ferments); cement (equal to Coaguline); pill coating (pearly white); magic neuralgic drops (never-failing remedy); copaiba paste (transparent); with many others, send stamp for list. The toilet requisites are identical with those prepared by a renowned West-end perfumer; the others are equally good; all are inexpensive to prepare; 5s. each (five for 17.); inquiry letters must be pre-paid. "Analyst," care of Mr. Warues, 79 Gaisford Street, N.W.

## WANTED.

Spray producer for throat, 17/16. *Pharmaceutical Journal*, Nos. 330, 335, 336, 337. Griffith, Chemist, Slough.

A set of tooth forceps, cheap. Address, George Taylor, 56 Newport Road, Middleborough. Howard's quinine and McFarlane's mur. morphia. Patents in exchange, 9/26.

A copy of the "Dispenser's Vade Mecum," published 10 or 15 years ago. State price 3/23. Beasley's "Pocket Formulary and 300 Prescriptions." Kendall, Blyth.

Soda-water machine, with bottling apparatus, in good order, lowest cash price to G. B., 285 Camberwell Road, London.

Good vulcaniser and other dental requisites; also Richardson's "Mechanical Dentistry," latest edition. 3/15.

Third edition Bentley's "Botany," Barlow's "Practice of Medicine." Corfe, Chemist, Maidstone.

Will send *Pharmaceutical Journal*, weekly, for Chemist and Druggist, monthly. Mathew, Chemist, Saltash.

A few Chemist and Druggists in exchange for patents. Charles Wild, Sydenham, Tetsworth.

Wanted to purchase, various chemical apparatus, retorts, jars, &c., by a student. Address, W., 8 Camden Avenue, Peckham.

The *Pharmaceutical Journal* complete, from 1868 to 1878; Gray's "Supplement to the British Pharmacopoeia"; state lowest cash price to Beverley, Chemist, Fife Keith.

O. P. Brown's blood purifier, Woodhouse's rheumatic elixir, Pare's worm-killer, James's life pills, Liverpool make, set teeth-stopping instruments. 8/14C.

Four 12-gallon pear-shape carboys, or four swan-neck, and four 27 or 30 inch specie jars, in good condition. A. C. F., 23 Southampton Row, Holborn, London, W.C.

Apparatus and chemicals, suit Atfield's "Chemistry." Bentley's "Botany." Squire's "Companion." Royle's "Materia Medica." Proctor's "Pharmacy," materia medica cabinet. Hughes, Llandysil, Carmarthenshire.





THERE is still perceptible a very distinct feeling of confidence in the prospect of a renewal of activity in the various branches of manufacturing trade. In many important sections of industry a large volume of business is being transacted, but in none has any appreciable improvement in prices yet resulted. The stock markets have of late shown a much more healthy vigour, and this is the strongest evidence of that gradual decline of timidity which has for so long held all enterprise in check. Those who think that the highest point of England's commercial greatness has been touched have only to contemplate the vast fields in Asia and Africa, as yet almost untouched by civilisation, to regain their faith. The decline of warlike fevers among the nations of Europe, and the revival of attention towards more fruitful enterprises can now be clearly traced, and these are auguries of another era of commercial energy.

The Board of Trade returns for May show a decrease of nearly 11 per cent. in the value of the imports, and an increase of 2 per cent. in the value of the exports for that month as compared with the corresponding month of last year. This is the first month of this year that an improvement has been shown in the exports, but it is not proof of much increase of business, inasmuch as the returns for May, 1878, were especially unfavourable in comparison with those of May, 1877, as the following figures will show:—

May, 1877	May, 1878	May, 1879
£	£	£
17,461,139	16,165,975	16,529,490

The trade in chemicals has been interfered with to a great extent by Whitsuntide, but in bulk it seems to have been fully up to the average. Buyers, however, still have the best of it, and the production being always in excess of the demand, it is impossible to make any headway in prices. Makers complain that they cannot now induce forward contracts, and large buyers can often place their orders at a fraction below nominal quotations. Bicarbonate of soda is now sold for 9s. 3d. instead of 9s. 6d. as last month, crystals have declined from 3l. 5s. to 3l. 2s. 6d., bleaching powder sells at 5s. 9d. landed.

Citric acid is firm at 1s. 10d., tartaric is hardly so firm at 1s. 4½d. for English crystals, and most business has been done in foreign make at 1s. 3½d. Cream of tartar is firm at 02s. to 103s.

Chlorate of potash has declined fractionally, but is now firmer, and can hardly be bought at less than 6½d. Prussiate and bichromate are unchanged. Ashes are a trifle lower.

There is no change in the salts of ammonia, brimstone is a little lower, arsenic selling freely but in good supply, sulphate of copper 3d. dearer at 18s. 3d., and likely to advance.

Saltpetre is a shade weaker, but nitrate of soda has advanced from 14s. to 14s. 3d. in consequence of the war in Chili. Borax is rather firmer.

The reports of an inferior opium crop still continue, but at present they have no influence on the market quotations. An advance during the summer is still probable, but as those with the best means of knowing do not venture to speculate, it seems probable that the crop is again an unusually good one. The advance in morphia is still maintained.

Quicksilver is still very dull, and during the past few days has been sold as low as 6l. per bottle. Mercurials are 1d. and 2d. per lb. cheaper.

The demand for quinine has decidedly slackened, and all brands are 1s. lower than last month. Barks still fairly maintain their value, but the stimulus to the growth which the high prices of the past year or two have given will assuredly have its effect before very long, and as an increased supply of the raw material may very likely coincide with a period when army orders will have fallen to peace-footing dimensions, a course of unusually low prices may set in earlier than many speculators imagine.

The attempt to force up the price of camphor is impracticable, in view of the present large stocks. Buyers have

refused to take parcels at recent nominal quotations, and privately lower terms have been accepted.

Cardamoms have arrived abundantly, and though for a time holders refused to let go except at the recent advance, they have since abandoned their hopes, and prices have fallen to normal rates.

Balsam copaiba is quiet but firm, balsam Peru has declined from the recent advance, but tolu has gone suddenly from 2s. to 2s. 6d.

A hurricane in the island of Réunion has partially destroyed the crop of vanilla, and Mexican reports are also very unfavourable. The price is much higher, and will probably advance still further.

Gum arabic has been selling at higher prices for good sorts and selected; Australian, however, tends downwards. Asafoetida, ammoniacum, and benjamin in abundant supply, and prices tending downwards. Myrrh selling well at steady rates. Copal is dearer. A recent speculative movement in shellac has caused an advance of 2s. to 3s.

The demand for musk has quieted down, and recent prices are not maintained.

Aloes still maintain their price if good qualities are brought forward, but lower kinds are cheaper.

Essences of bergamot and lemon are still selling at low prices, though Italian holders are rather firmer in regard to the latter. American oil of peppermint is rather dearer.

Castor oil is abundant and dull. Almond oil is quiet at 1s. 9d. The new cod-liver oil is said to be unusually fine.

A Bergen report says that the Norwegian cod fishery has resulted more successfully than has almost ever been known previously, and the report also states that the proportion of medicinal oil prepared has not been reduced on account of the low prices. If this be correct, a low-priced season for Norwegian oil may be anticipated.

An advance of 2l. has been attained in linseed oil, which is now quoted at 28l., though latest transactions indicate a trifling reaction. Rape has been quiet, and has slightly declined in the month. Olive oils are now firmly held, but there is still only a slight demand. Holders, however, insist on higher prices, and confidently predict a considerable advance. Seville has realised 49l.; Sicilian, 44l. 10s. to 45l.; Corfu, 43l. to 44l. Whale and seal oils are quiet, but an advance has been established in cod. American turpentine has declined to 21s. 6d. for spot, but 22s. is paid for delivery in September. Petroleum again marks a decline. It has touched as low as 6½d., but is now a fraction higher. The enormous shipments of this product account for the extraordinarily low price. Up to May 27, 97,000,000 gallons had been shipped from New York during the current year, while in the same period of 1878 the shipments only reached 75,000,000 gallons.

We append the record of stocks of drugs in the port of London on May 31.

	1879	1878		1879	1878
Aloes .....cs	1,671	1,624	Gum (Cont)—		
" .....kegs	11	14	Assafoetida pkgs	532	296
" .....gourds	755	1,279	Benjamin.. "	1,100	531
Aniseed, Star chts	615	935	Damar.... "	290	1,027
Arrowroot ....cks	12,332	16,711	Galbanum .. "	19	25
" bxs & tins	11,563	7,809	Gamboge.. "	128	148
Balsam.....cks, &c.	39	114	Guaiaicum.. "	48	36
Bark, Medicinal			Kino ..... "	37	11
cks, &c.	154	878	Kowrie .....tns	826	928
srns, &c.	13,278	7,139	Mastic .....pkgs	145	148
Borax.....pkgs	628	912	Myrrh, E.I. "	189	262
Bees' Wax ..bls & srns	599	503	Olibanum.. "	2,609	3,544
" cks & cs	2,596	1,338	Sandarac.. "	863	1,027
" cakes	27	53	Senegal.....tns	53	18
Wax, Jap.veg. pkgs	4,422	5,652	Tragacanth pkgs	1,879	1,469
Camphor ....pkgs	10,226	4,993	Ipecac. ....cks & bgs	192	225
Cardamoms ..chts	556	423	Jalap.....bls	468	480
Cocc. Ind, bgs, &c.	1,597	2,069	Nux Vomica pkgs	3,570	4,160
Colombo root pkgs	559	643	Oil—		
Cream Tartar..cks	101	102	Castor .....cks	16	1
Cubebes.....bgs	162	184	" .....cs	7,123	2,452
Dragonsblood chts	50	92	" .....tns	1,428	226
Galls, E.I. cks & cs	2,588	3,061	Palm .....tns	4,059	1,691
M'terranean sks	916	1,404	Olive .....cks, &c.	925	849
Gum—			Aniseed .....cs	119	202
Ammoniac pkgs	491	505	Cassia .....cs	307	662
Animi & Cojal pkgs	3,868	8,278	Opium .....cs, &c.	891	1,591
Arabic, Barbary pkgs	1,358	1,003	Rhubarb.....chts	1,151	1,175
Turkey .. "	757	377	Sarsaparilla ..bls	698	1,116
E.I..... "	1,659	2,470	Senna .....bls, &c.	1,090	2,412
			Shellac .....chts	41,279	43,176
			Turmeric .....tns	1,724	1,499

# Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.		1879.		1878.	
ACIDS—		s. d.	s. d.	s. d.	s. d.
Acetic .....	per lb.	0 2½	to 0 0	0 2½	to 0 0
Citric .....	per lb.	1 10	.. 0 0	2 2	.. 0 0
Hydrochloric .....	per cwt.	5 0	.. 7 0	4 0	.. 7 0
Nitric .....	per lb.	0 4½	.. 0 0	0 4½	.. 0 0
Oxalic .....	per lb.	0 4	.. 0 0	0 4½	.. 0 0
Sulphuric .....	per lb.	0 0½	.. 0 1	0 0½	.. 0 1
Tartaric crystal ..	per lb.	1 4	.. 1 4½	1 4½	.. 0 0
powdered ..	per lb.	1 4	.. 1 4½	1 4½	.. 1 5
ANTIMONY ore .....	per ton	240 0	.. 300 0	240 0	.. 300 0
crude ..	per cwt.	36 0	.. 0 0	37 0	.. 0 0
star .....	per cwt.	46 0	.. 47 0	49 0	.. 49 6
ARSENIC, lump .....	per cwt.	26 0	.. 0 0	26 0	.. 0 0
powder ..	per cwt.	8 6	.. 8 9	8 6	.. 9 3
BRIMSTONE, rough ..	per ton	100 0	.. 105 0	110 0	.. 115 0
roll ..	per cwt.	8 9	.. 9 6	9 9	.. 10 6
flour .....	per cwt.	10 6	.. 12 6	11 0	.. 13 6
IODINE, dry .....	per oz.	1 2	.. 0 0	1 0	.. 0 0
IVORY BLACK, dry ..	per cwt.	8 6	.. 0 0	8 6	.. 0 0
MAGNESIA, calcined ..	per lb.	1 10	.. 0 0	1 10	.. 0 0
MERCURY .....	per bottle	120 0	.. 0 0	140 0	.. 0 0
MINIUM, red .....	per cwt.	16 0	.. 0 0	19 6	.. 19 9
orange ..	per cwt.	28 9	.. 0 0	31 6	.. 0 0
PRECIPITATE, red ..	per lb.	3 2	.. 0 0	3 6	.. 0 0
white ..	per lb.	3 1	.. 0 0	3 5	.. 0 0
PRUSSIAN BLUE ..	per lb.	0 0	.. 0 0	0 0	.. 0 0
SALTS—					
Alum .....	per ton	120 0	.. 122 6	125 0	.. 130 0
powder .....	per ton	140 0	.. 0 0	145 0	.. 0 0
Ammonia:					
Carbonate .....	per lb.	0 6½	.. 0 6½	0 6½	.. 0 6½
Hydrochlorate, crude,					
white .....	per ton	600 0	.. 720 0	600 0	.. 720 0
British (see Sal Am.)					
Sulphate .....	per ton	360 0	.. 365 0	490 0	.. 410 0
Argol, Cape .....	per cwt.	75 0	.. 82 0	75 0	.. 90 0
Red .....	per cwt.	56 0	.. 70 0	58 0	.. 70 0
Operto, red ..	per cwt.	28 0	.. 30 0	32 6	.. 33 0
Sicily ..	per cwt.	60 0	.. 65 0	60 0	.. 65 0
Ashes (see Potash and Soda)					
Bleaching powd. ....	per cwt.	5 9	.. 0 0	5 6	.. 5 9
Borax, crude .....	per cwt.	27 0	.. 33 0	26 0	.. 28 0
British refnd. ....	per cwt.	36 0	.. 37 0	36 0	.. 37 6
Calomel .....	per lb.	2 9	.. 0 0	3 1	.. 0 0
Copper:					
Sulphate .....	per cwt.	18 3	.. 0 0	18 6	.. 18 9
Copperas, green ..	per ton	50 0	.. 55 0	50 0	.. 55 0
Corrosive Subbimate ..	per lb.	2 2	.. 0 0	2 6	.. 0 0
Cr. Tartar, French, ..	per cwt.	102 0	.. 102 6	98 0	.. 99 0
brown ..	per cwt.	80 0	.. 82 6	80 0	.. 80 0
Epsom Salts .....	per cwt.	4 3	.. 6 0	4 3	.. 6 0
Glauber Salts .....	per cwt.	3 0	.. 4 6	3 0	.. 4 6
Lime:					
Acetate, white, ..	per cwt.	11 0	.. 20 0	11 0	.. 20 0
Magnesia: Carbonate ..	per cwt.	47 6	.. 0 0	47 6	.. 0 0
Potash:					
Bichromate .....	per lb.	0 5	.. 0 0	0 3½	.. 0 0
Carbonate:					
Potashes, Canada, 1st					
sort .....	per cwt.	22 6	.. 23 0	23 0	.. 23 6
Pearlshes, Canada, 1st					
sort .....	per cwt.	34 6	.. 35 0	31 0	.. 0 0
Chlorate .....	per lb.	0 6	.. 0 6½	0 6½	.. 0 7
Prussiate .....	per lb.	0 10½	.. 0 10½	0 10	.. 0 0
red ..	per lb.	1 8	.. 1 10½	1 8	.. 1 9
Tartrate (see Argol and Cream of Tartar)					
Potassium:					
Bromide .....	per cwt.	1 8	.. 0 0	0 0	.. 0 0
Chloride .....	per cwt.	6 6	.. 0 0	6 6	.. 0 0
Iodide .....	per lb.	16 0	.. 16 6	15 0	.. 15 6
Quinine:					
Sulphate, British, in					
bottles .....	per oz.	11 6	.. 0 0	13 6	.. 13 8
Sulphate, French ..	per lb.	11 6	.. 12 0	0 0	.. 0 0
Sal Acetos .....	per lb.	0 6	.. 0 6½	0 7	.. 0 0
Sal Ammoniac, Brit. cwt.		44 0	.. 45 0	42 0	.. 43 0
Saltpetre:					
Bengal, 6 per cent. or					
under .....	per cwt.	18 9	.. 19 3	20 0	.. 20 9
Bengal, over 6 per cent.					
per cwt.		17 9	.. 18 6	19 3	.. 19 9
British, refined ..	per cwt.	23 6	.. 24 6	24 9	.. 25 9
Soda: Bicarbonate, ..	per cwt.	9 3	.. 0 0	9 6	.. 9 9
Carbonate:					
Soda Ash .....	per deg.	0 1½	.. 0 0	0 0	.. 0 0
Soda Crystals ..	per ton	62 6	.. 0 0	67 6	.. 70 0
Hyposulphite, ..	per cwt.	0 0	.. 0 0	0 0	.. 0 0
Nitrate .....	per cwt.	14 0	.. 14 3	16 0	.. 0 0
SUGAR OF LEAD, White, ..	per cwt.	38 0	.. 0 0	37 6	.. 0 0
Brown, ..	per cwt.	26 6	.. 0 0	26 6	.. 0 0
SULPHUR (see Brimstone)					

		1879.		1878.	
		s. d.	s. d.	s. d.	s. d.
VERDIGRIS .....	per lb.	0 0	to 0 0	1 1	to 1 5
VERMILION, English	per lb.	2 2	.. 0 0	2 8	.. 0 0
China ..	per lb.	2 3	.. 0 0	2 5	.. 0 0
DRUGS.					
ALOES, Hepatic .....	per cwt.	70 0	.. 160 0	80 0	.. 180 0
Sootrine ..	per cwt.	100 0	.. 200 0	85 0	.. 200 0
Cape, good ..	per cwt.	47 0	.. 50 6	43 0	.. 44 6
Inferior ..	per cwt.	40 0	.. 46 0	35 0	.. 42 0
Barbadoes ..	per cwt.	35 0	.. 160 0	40 0	.. 160 0
AMBERGRIS, grey .....	per oz.	47 0	.. 68 0	80 0	.. 90 0
BALSAM—					
Canada .....	per lb.	0 9	.. 1 0	0 9	.. 1 2
Capivi .....	per lb.	1 4	.. 1 11	1 6	.. 1 8
Peru .....	per lb.	4 0	.. 4 6	4 9	.. 0 0
Tolu .....	per lb.	2 6	.. 0 0	3 0	.. 3 3
BARKS—					
Canella alba .....	per cwt.	20 0	.. 28 0	18 0	.. 22 0
Cascarilla .....	per cwt.	24 0	.. 35 0	16 6	.. 23 0
Peru, crown & grey ..	per lb.	1 0	.. 2 5	1 0	.. 2 10
Calisaya, flat					
quill ..	per lb.	2 6	.. 6 10	2 6	.. 4 6
Carthagea ..	per lb.	2 7	.. 4 0	4 3	.. 8 0
Columbian ..	per lb.	1 10	.. 8 0	1 4	.. 4 2
E. I. ....	per lb.	1 6	.. 3 8	1 6	.. 6 9
“ good & fine ..	per lb.	4 0	.. 11 0	1 3	.. 4 10
Pitayo .....	per lb.	1 6	.. 3 3	0 6	.. 1 6
Red .....	per lb.	3 6	.. 8 6	3 0	.. 9 0
Buchu Leaves .....	per lb.	0 2½	.. 1 1	0 2½	.. 1 3
CAMPOR, China ..	per cwt.	75 0	.. 0 0	77 6	.. 0 0
Japan ..	per cwt.	77 6	.. 80 0	82 6	.. 0 0
Refin. Eng. per lb.		1 0½	.. 0 0	1 1½	.. 0 0
CANTHARIDES .....	per lb.	1 6	.. 4 3	2 2	.. 5 0
CHAMOMILE FLOWERS ..	per cwt.	20 0	.. 80 0	50 0	.. 200 0
CASTOREUM .....	per lb.	16 0	.. 28 0	9 0	.. 30 0
DRAGON'S BLOOD, Ip. p. cwt.		100 0	.. 260 0	100 0	.. 280 0
FRUITS AND SEEDS (see also Seeds and Spices).					
Anise, China Star ..	per cwt.	82 0	.. 90 0	75 0	.. 80 0
Spanish, &c. ....	per cwt.	35 0	.. 42 6	34 0	.. 50 0
Beans, Tonquin ..	per lb.	4 6	.. 6 6	1 9	.. 5 0
Cardamoms, Malabar					
good ..	per lb.	5 6	.. 7 3	5 0	.. 6 3
inferior ..	per lb.	2 0	.. 5 0	1 9	.. 4 10
Aleppy ..	per lb.	2 0	.. 6 6	2 0	.. 5 6
Madras ..	per lb.	2 0	.. 5 0	2 8	.. 4 6
Ceylon ..	per lb.	2 2	.. 4 0	3 6	.. 5 0
Cassia Fistula .....	per cwt.	40 0	.. 57 0	80 0	.. 89 0
Castor Seeds ..	per cwt.	0 0	.. 0 0	0 0	.. 0 0
Cocculus Indicus ..	per cwt.	7 3	.. 8 6	7 9	.. 10 0
Colocyath, apple ..	per lb.	1 3	.. 1 10	1 0	.. 1 9
Croton Seeds .....	per cwt.	28 0	.. 30 0	26 0	.. 31 0
Cubeb ..	per cwt.	50 0	.. 0 0	32 0	.. 35 0
Cumin ..	per cwt.	27 0	.. 44 0	20 0	.. 35 0
Dividivi .....	per lb.	12 0	.. 15 6	12 0	.. 16 0
Feenugreek .....	per lb.	0 0	.. 0 0	6 0	.. 12 0
Guinea Grains ..	per lb.	29 0	.. 30 0	28 0	.. 0 0
Juniper Berries ..	per lb.	0 0	.. 0 0	6 6	.. 9 0
Nux Vomica .....	per lb.	6 0	.. 9 0	9 6	.. 13 0
Tamarinds, East India, ..	per lb.	8 0	.. 15 0	12 0	.. 19 0
West India ..	per lb.	18 0	.. 24 0	29 0	.. 31 0
Vanilla, large ..	per lb.	28 0	.. 34 0	20 0	.. 27 0
inferior ..	per lb.	12 0	.. 7 6	15 0	.. 19 0
GINGER, Preserved, ..	per lb.	0 5	.. 0 6	0 5½	.. 0 6
HONEY, Chili ..	per cwt.	30 0	.. 34 0	37 0	.. 50 0
Jamaica ..	per cwt.	35 0	.. 41 0	38 0	.. 41 0
Australian ..	per cwt.	0 0	.. 27 0	0 0	.. 0 0
IPECACUANHA .....	per lb.	3 11	.. 5 0	3 2	.. 5 7
ISINGLASS, Brazil ..	per lb.	2 6	.. 5 7	2 9	.. 4 9
Tongue sort ..	per lb.	3 2	.. 5 2	3 8	.. 5 6
East India ..	per lb.	1 0	.. 4 6	1 7	.. 5 0
West India ..	per lb.	3 5	.. 5 2	3 8	.. 4 6
Russ, long staple ..	per lb.	6 0	.. 10 6	8 0	.. 15 0
inferior ..	per lb.	0 0	.. 0 0	0 0	.. 0 0
Simovia ..	per lb.	1 6	.. 2 6	1 6	.. 3 0
JALAP, good .....	per lb.	1 0	.. 1 2	0 9	.. 0 11
infer. & stems ..	per lb.	0 10	.. 0 11½	0 7	.. 0 8
LEMON JUICE .....	per degree	0 0½	.. 0 1½	0 1	.. 0 1½
LIME JUICE .....	per gall.	1 3	.. 1 8	0 0	.. 0 0
LIQUORICE, Spanish ..	per cwt.	0 0	.. 0 0	34 0	.. 39 0
Liquorice Root ..	per cwt.	0 0	.. 0 0	0 0	.. 0 0
MANNA, flaky .....	per lb.	0 0	.. 0 0	3 6	.. 4 0
small ..	per lb.	0 0	.. 0 0	1 4	.. 1 6
MUSK, Pod .....	per oz.	20 0	.. 66 6	21 0	.. 62 0
Grain .....	per oz.	30 0	.. 51 0	20 0	.. 55 0
OILS (see also separate list)					
Almond, expressed ..	per lb.	1 9	.. 0 0	1 10	.. 0 0
Castor, 1st pale ..	per lb.	0 4½	.. 0 5½	0 5½	.. 0 5½
second ..	per lb.	0 3½	.. 0 4	0 4½	.. 0 5½
Cod Liver .....	per gall.	2 6	.. 4 6	4 0	.. 5 0
Croton .....	per oz.	0 2½	.. 0 3	0 2½	.. 0 3½
Essential Oils:					
Almond .....	per lb.	20 0	.. 0 0	25 0	.. 0 0
Anise-seed .....	per lb.	7 8	.. 0 0	7 0	.. 7 3
Bergamot .....	per lb.	6 0	.. 9 0	10 0	.. 15 0
Cajeput .....	per bottle	3 6	.. 4 0	3 0	.. 3 6
Caraway .....	per lb.	0 0	.. 0 0	9 0	.. 9 3
Cassia .....	per lb.	2 9	.. 2 10	2 9	.. 0 0
Cinnamon .....	per oz.	3 9	.. 4 6	4 3	.. 5 0
Cinnamon-leaf ..	per lb.	0 1½	.. 0 1½	0 2	.. 0 0
Citronelle .....	per lb.	0 3½	.. 0 0	0 2½	.. 0 3
Clove .....	per lb.	9 0	.. 0 0	7 6	.. 0 0
Orange Grass ..	per lb.	0 2½	.. 0 0	0 2½	.. 0 3½
Lavender .....	per lb.	0 6	.. 0 0	1 8	.. 7 0
Lemon .....	per lb.	3 0	.. 5 6	5 0	.. 8 6
Lemongrass .....	per oz.	0 2½	.. 0 3	2 ½	.. 0 0
Neroli .....	per lb.	0 0	.. 0 0	3 0	.. 6 6



1879.				1878.				
Essential Oils, continued:—	s.	d.	s.	d.	s.	d.	s.	d.
Nutmeg .....per oz.	0	3	0	3½	0	4	to	0 4½
Orange.....per lb.	5	0	7	0	4	3	..	7 0
Otto of Roses.....per oz.	18	0	30	0	35	0	..	44 0
Patchouli .....	1	6	3	0	1	6	..	3 0
Peppermint :								
American .....per lb.	7	6	9	6	10	9	..	12 6
English .....	21	0	23	0	24	0	..	25 0
Japan .....	6	6	6	0	0	0	..	0 0
Rosemary .....	0	0	0	0	2	3	..	2 6
Sassafras .....	2	0	2	3	2	3	..	2 6
Spearmint .....	8	0	9	0	12	0	..	15 0
Thyme.....	0	0	0	0	0	0	..	0 0
Mace, expressed ..per oz.	0	5	0	0	0	6	..	0 10
OPIMUM, Turkey.....per lb.	17	0	18	0	16	0	..	17 6
inferior .....	10	0	15	0	10	0	..	12 0
QUASSIA(bitter wood)per ton	100	0	130	0	100	0	..	130 0
RHUBARB, China, good and fine .....	3	0	4	0	3	3	..	4 1
Mid. to ord.....	0	3	2	3	1	0	..	2 6
Dutch Trimmed..	0	0	0	0	0	0	..	0 0
ROOTS—Calumba.....per cwt.	25	0	50	0	19	0	..	51 0
China .....	28	0	30	0	25	0	..	30 0
Chiretta .....	0	2½	0 3½	0	0	3	..	0 4
Galangal .....	21	0	23	0	21	0	..	21 6
Gentian .....	16	0	20	0	19	0	..	21 0
Hellebore .....	0	0	0	0	0	0	..	0 0
Orris .....	20	0	45	0	55	0	..	65 0
Pellitory .....	0	0	0	0	70	0	..	76 0
Pink .....	1	0	1	4	0	0	..	0 0
Rhatany .....	0	2	0	5	0	4	..	0 7
Seneka .....	1	9	1	10	2	11	..	3 0
Snake .....	0	0	0	0	0	10	..	1 0
SAFFRON, Spanish ..	20	0	40	0	20	0	..	32 0
SALEP .....	120	0	140	0	240	0	..	300 0
SARSAPARILLA, Lima per lb.	0	4	0 5½	0	0	6	..	0 7
Guayaquil .....	1	1	1	4	2	2	..	2 6
Honduras .....	1	0	1	4	0	11	..	1 6
Jamaica .....	1	3	1	7	1	2	..	2 6
SASSAFRAS .....	0	0	0	0	9	0	..	11 0
SCAMMONY, Virgin ..per lb.	23	0	25	0	0	0	..	0 0
second & ordinary ..	8	0	20	0	0	0	..	0 0
SENNA, Bombay .....	0	0½	0 2½	0	0	0	..	0 0
Tinnivelly .....	0	11	0	9	0	1½	..	1 5
Alexandria .....	0	3½	1	0	0	5	..	1 6
SPERMACETI, refined ..	1	3	0	0	1	4	..	0 0
American .....	1	1	1	2	1	3	..	0 0
SQUILLS .....	0	1	0	6	0	2½	..	0 4
GUMS.	£	s.	£	s.	£	s.	£	s.
AMMONIAC drop ..per cwt.	2	2	2	10	1	18	..	2 5
lump.....	0	12	2	0	0	15	..	1 15
ANIMI, fine washed ..	14	0	15	10	13	15	..	14 10
bold scraped .....	12	0	13	15	12	0	..	13 10
sorts .....	9	10	11	17/6	8	10	..	11 10
dark .....	5	5	9	0	2	5	..	8 0
ARABIC, E.L., fine ..	2	15	3	12	2	15	..	3 3
pale picked .....	1	8	2	14	2	0	..	2 14
srts., md. to fin. ..	1	3	1	15	1	5	..	2 0
garblings .....	6	5	9	10	5	0	..	9 0
TURKEY, pick. gd. to fin. ..	3	5	6	0	3	0	..	5 15
second & inf. ....	1	15	3	5	2	10	..	3 16
in sorts ..	1	12	2	3	1	14	..	1 19
Gedda ..	3	0	3 7/6	0	0	0	..	0 0
BARBARY, browu. ..	1	15	2	10	1	19	..	2 10
AUSTRALIAN .....	1	8	2	12	0	13	..	3 5
ASSAFETIDA, cm. to fin. ..	21	0	70	0	20	0	..	70 0
BENJAMIN, 1st & 2nd ..	6	0	16	10	6	10	..	17 0
Sumatra 1st & 2nd ..	2	10	5	12/6	3	0	..	3 10
3rd ..	3	5	6	0	6	0	..	6 15
COPAL, Angola red ..	3	0	3	10	4	0	..	5 0
Benguela ..	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
Sierra Leone, per lb.	0 7½	0 10	0 6½	0 9				
Manilla.....per cwt.	16	0	24	0	18	0	..	24 0
DAMMAR, pale ....	85	0	0	75	0	80	..	80 0
Singapore .....	65	0	70	0	69	0	..	77 0
EUPHORBUM .....	0	0	0	9	0	15	..	15 0
GALBANUM .....	0	0	0	0	4	0	..	1 0
GAMBOGE, pckd. pipe per cwt.	200	0	250	0	190	0	..	260 0
GUAIACUM .....	1	0	2	9	1	0	..	2 5
KINO.....per cwt.	60	0	90	0	81	0	..	85 0
KOWRIE, sorts ..	35	0	48	0	18	6	..	43 0
selected ..	120	0	135	0	100	0	..	170 0
MASTIC, picked .....	2	6	3	0	4	0	..	5 0
MYRRH, gd. & fine ..per cwt.	150	0	250	0	150	0	..	200 0
ord. to fair.....	60	0	150	0	100	0	..	150 0
OLIBANUM, p. drop ..	80	0	86	0	47	0	..	50 0
amber & ylw. ....	70	0	78	0	36	0	..	46 0
garblings .....	23	0	34	0	12	0	..	28 0
SENEGAL .....	50	0	60	0	62	6	..	95 0
SANDARAC .....	55	0	88	0	82	0	..	100 0
SHELLAC, Orange..	74	0	88	0	72	0	..	85 0
Liver ..	70	0	76	0	63	0	..	70 0
THUS .....	0	0	0	0	20	0	..	21 6
TRAGACANTH, leaf ..	200	0	360	0	240	0	..	400 0
in sorts ..	70	0	190	0	25	0	..	175 0
OILS.	£	s.	£	s.	£	s.	£	s.
SEAL, pale .....per tun	28	0	0	0	32	10	..	33 0
yellow to tinged ..	25	0	27	0	30	10	..	32 0
brown .....	23	0	24	0	28	0	..	29 0
SPERM .....	55	0	0	0	70	0	..	72 0
BODY .....	0	0	0	0	0	0	..	0 0
COD .....	28	0	29	0	32	0	..	0 0

1879.				1878.			
Oils, continued.—		£	s.	£	s.	£	s.
WHALE, South Sea, pale, per tun	27 0	to	0 0	32 0	to	0 0	
yellow ..	25 0	..	26 0	31 0	..	0 0	
brown ..	21 0	..	23 0	28 0	..	29 0	
East India, Fish ..	0 0	..	0 0	0 0	..	0 0	
OLIVE, Galipoli .....	per ton	0 0	0 0	0 0	..	0 0	
Gioja .....	"	0 0	0 0	0 0	..	0 0	
Levant .....	"	43 0	0 0	0 0	..	0 0	
Mogador .....	"	0 0	0 0	0 0	..	0 0	
Spanish .....	"	49 0	0 0	49 0	..	50 0	
Sicily .....	"	44 10	45 0	0 0	..	0 0	
COCOA-NUT, Cochinn ..	"	42 0	50 0	51 0	..	0 0	
Ceylon .....	"	36 10	37 5	39 0	..	39 15	
Mauritius ..	"	37 10	37 15	38 0	..	39 10	
GROUND NUT AND GINGELLY :							
Bombay .....	"	0 0	0 0	0 0	..	0 0	
Madras .....	"	0 0	0 0	0 0	..	0 0	
PALM, fine .....	"	32 10	0 0	39 0	..	0 0	
LINSEED .....	"	28 0	0 0	26 15	..	0 0	
RAPESEED, English, pale ..	"	30 5	0 0	33 10	..	33 15	
brown ..	"	28 5	0 0	31 10	..	31 15	
Foreign, pale ..	"	0 0	0 0	0 0	..	0 0	
brown .....	"	0 0	0 0	0 0	..	0 0	
COTTONSEED .....	"	28 0	28 10	30 10	..	31 10	
LARD .....	"	36 0	36 10	40 0	..	44 0	
TALLOW .....	"	30 0	35 0	30 10	..	34 10	
TURPENTINE, American, cks.	"	s. d.	s. d.	s. d.	s. d.		
French ..	"	21 6	0 0	24 6	..	0 0	
PETROLEUM, Crude .....	"	0 0	0 0	0 0	..	0 0	
refined, per gall.	"	0 6½	0 0	0 9½	..	0 0	
Spirit ..	"	0 7½	0 7½	0 7	..	0 7½	
SEEDS.							
CANARY .....	per qr.	44 0	55 0	47 0	..	53 0	
CARAWAY, English per cwt.	"	0 0	0 0	43 0	..	45 0	
German, &c. ....	"	0 0	0 0	48 0	..	49 0	
CORIANDER .....	"	14 9	20 0	18 0	..	23 0	
HEMP .....	per qr.	39 0	44 0	0 0	..	0 0	
LINSEED English ..	"	60 0	68 0	0 0	..	0 0	
Black Sea & Azof ..	"	50 6	0 0	0 0	..	0 0	
Calcutta ..	"	51 6	52 0	48 0	..	0 0	
Bombay ..	"	53 0	0 0	51 0	..	0 0	
St. Petersburg ..	"	0 0	0 0	0 0	..	0 0	
Mustard, brown, per bshl.	"	0 0	0 0	0 0	..	0 0	
white ..	"	9 0	12 6	13 0	..	16 0	
POPPY, East India, per qr.	"	51 0	0 0	51 6	..	52 0	
SPICES.							
CASSIA LIGNEA .....	per cwt.	37 0	45 0	39 0	..	50 0	
Vera ..	"	22 0	35 0	22 0	..	36 0	
Buds ..	"	57 0	58 0	56 0	..	58 0	
CINNAMON, Ceylon :							
1st quality .....	per lb.	1 0	3 4	1 8	..	2 10	
2nd do. ....	"	0 11	2 4	1 8	..	2 6	
3rd do. ....	"	0 10	1 6	1 4	..	1 9	
Tellicherry .....	"	1 8	2 0	0 0	..	0 0	
Culps ..	"	0 2½	0 5	0 3	..	0 6	
CLOVES, Penang ..	"	1 7	1 9	1 7	..	1 9	
Amboyna ..	"	1 4	1 6	1 3	..	1 5	
Zanzibar ..	"	1 3½	1 4	1 1	..	1 2	
GINGER, Jam., fine per cwt.	"	90 0	200 0	90 0	..	202 6	
Ord. to good ..	"	50 0	80 0	48 0	..	80 0	
African ..	"	20 0	0 0	24 0	..	25 0	
Bengal ..	"	17 0	0 0	20 0	..	0 0	
Malabar ..	"	0 0	0 0	0 0	..	0 0	
Cochin ..	"	33 0	120 0	48 0	..	120 0	
PEPPER, Blk., Malabar, per lb.	"	0 3½	0 4½	0 4½	..	0 5½	
Singapore ..	"	0 3½	0 3½	0 3½	..	0 3½	
White Tellicherry ..	"	0 0	0 0	0 10	..	1 4	
Cayenne ..	"	1 0	3 0	1 4	..	3 0	
MACE, 1st quality ..	"	1 9	2 7	1 11	..	2 10	
2nd and inferior ..	"	1 0	1 8	1 0	..	1 10	
NUTMEGS, 78 to 60 to lb.	"	3 5	5 0	3 8	..	4 6	
90 to 80 ..	"	2 11	3 4	3 0	..	3 8	
132 to 95 ..	"	1 10	2 10	1 10	..	2 10	
PIMENTA ..	"	0 5	0 5½	0 4	..	0 4½	
VARIOUS PRODUCTS.							
COCHINEAL—							
Honduras, black .....	per lb.	0 0	0 0	2 2	..	2 6	
silver ..	"	0 0	0 0	2 1	..	2 2	
pasty ..	"	0 0	0 0	2 11	..	2 0	
Mexican, black .....	"	2 2	2 4	2 1	..	0 0	
silver ..	"	2 2	0 0	1 11	..	0 0	
Teneriffe, black ..	"	2 2	2 11	2 2	..	2 10	
silver ..	"	2 2	2 3	2 0	..	2 1	
SOAP, Castile .....	per cwt.	25 0	43 0	33 0	..	34 10	
SOY, China .....	gall.	1 11	2 0	2 7	..	0 0	
TERRA JAPONICA							
Gambier .....	per cwt.	16 0	0 0	16 6	..	16 9	
Free cubes ..	"	24 0	27 0	25 0	..	27 0	
Cutch ..	"	23 0	26 0	23 0	..	25 0	
WAX, BEES, English ..	"	£0 0	£0 0	£0 0	..	0 0	
Jamaica ..	"	6 10	7 0	7 0	..	7 15	
East India ..	"	5 10	6 0	7 5	..	7 15	
VEGETABLE, Japan ..	"	2 16	2 19	2 8	..	2 10	
WOOD, DYE, Bar .....	per ton	3 10	0 0	3 0	..	3 5	
Brazil .....	"	12 0	45 0	14 0	..	20 0	
Cam .....	"	20 0	23 0	22 0	..	34 0	
Fustic, Cuba ..	"	0 0	0 0	8 0	..	8 10	
Jamaica ..	"	6 0	6 10	5 0	..	5 10	
LOGWOOD, Campeachy ..	"	7 10	8 0	8 5	..	8 15	
Honduras ..	"	6 10	7 0	6 10	..	6 15	
St. Domingo ..	"	5 5	6 0	5 10	..	6 0	
Jamaica ..	"	5 10	0 0	5 5	..	5 15	
LIMA, first pile ..	"	10 10	11 10	9 10	..	10 0	
RED SANDERS ..	"	5 10	6 0	5 10	..	0 0	



35/72. **Homoeopathic Pharmacy.**—*Country Chemist.*—The Homoeopathic Pharmacopoeia is the only work we know of which gives directions for making homoeopathic preparations. In the preface it says:—"The object of this work is to instruct homoeopathic chemists in all the processes peculiar to homoeopathic pharmacy, but no attempt is made to teach them the entire art of pharmacy. No one should pretend to make homoeopathic medicines who is not thoroughly versed in the art of pharmacy, and has not had large practical experience in the selecting of drugs, and in making all the ordinary preparations employed by chemists." Pills are made by manufacturing confectioners of sugar and starch, and medicated by the wholesale homoeopathic chemists. This is effected by thoroughly drying them, placing them in a bottle, pouring over them a sufficient quantity of the tincture or attenuation to be employed, and agitating till it is uniformly absorbed. The Pharmacopoeia is published by the British Homoeopathic Society, Great Ormond Street, W.C.

36/70. *P. C. X.*—(1). Attfield's "Chemistry," Muter's "Chemistry," Proctor's "Pharmacy." (2). We do not undertake to adjudicate the merits of different machines. We should advise you to get prospectuses from Coking, of Sittingbourne, and Pindar, of Church Road, Camberwell. (3). Cartner's pill-coating machine (see advertisement pages), will probably answer your purpose. (4). We know of no accurate method of dividing powders but weighing them. The small sidditz measures are, however, sufficiently trustworthy for many purposes. (5.) Jourdan's "Pharmacopoeia Universalis" is the most extensive work of the kind. It is out of print, but a copy could doubtless be obtained by advertising in suitable places. The foreign pharmacopoeias can be obtained through any foreign bookseller.

11/69. **Hydrogen Peroxide.**—*Junna.*—We do not think you can make hydrogen peroxide economically. If you do not want it perfectly pure you could probably obtain a fairly strong solution from the Sanitas Company. It is most easily made by passing carbonic anhydride through water containing barium peroxide in suspension. Malt yerbine is a proprietary article, consisting probably of malt extract and guarana—yerva buena.

37/67. **Leeming's Essence.**—*Lobelia.*—A correspondent gave us the following formula, which we published two or three years ago, but we cannot say whether it correctly represents the original:—

Cantharides	..	..	..	..	..	8 oz.
Camphor	..	..	..	..	..	2 oz.
Euphorbium	..	..	..	..	..	8 oz.
Oil of origanum	..	..	..	..	..	1 oz.
Castile soap	..	..	..	..	..	3 oz.
Spirits of wine	..	..	..	..	..	6 pints

Digest for fourteen days and filter.

37/71. **Chemist's Apprentice.**—Herb beer may be variously made, according to the object for which it is to be taken. As a stomachic, wormwood, gentian, Seville orange-peel, angelica, and centaury are infused for a few days in beer. A compound extract of sarsaparilla mixed with beer is sometimes called by the name, or the ingredients of decoction of sarsaparilla put in hot water (1 lb. of sarsaparilla to the gallon, with spices to flavour), with the addition of some moist sugar (3 lbs. to 1 gallon), are allowed to ferment.

37/34. **Chemistry for Beginners.**—*Lambda.*—The best thing to be done by a beginner who wishes to learn general chemistry is to purchase Roscoe's "Primer of Chemistry," 1s., and try all the experiments and make himself master of the book. If a teacher can then be had we should advise Roscoe's "Elementary Chemistry" as the next work, followed by Valentin's "Chemical Analysis." If the student has to work entirely alone, we think the best work is Attfield's "Pharmaceutical Chemistry," even when a general knowledge is alone required, for it gives more explicit and graduated directions for performing the experiments than any other we know of. After working through the book to the end of the analysis of metals and salts, Fowne's "Chemistry" should be studied to fill the outline of general knowledge.

37/57. *Zulu.*—See above the answer to "Lambda."

37/33. **Army Medical Department.**—*Quasitor.*—Every candidate for a commission in the Army Medical Department must be fully qualified to practice medicine and surgery in Great Britain and Ireland. He must, in addition, pass a special examination before the Army Medical Board, must pass through an entire course of practical instruction at the army medical school, and pass another special examination. He is then eligible for a commission as surgeon for a limited period of 10 years' service on full pay—250l. per annum, with allowances for lodgings, servants, light, and fuel. These are the principal regulations, but there are numerous minor ones, which can probably be obtained from the Medical Department of the Army, 6 Whitehall Yard, London, S.W. It should be distinctly understood that you must be a full-fledged medical man before you can be a candidate for a commission in the army.

37/59. **Engraving Steel.**—*Ferrum.*—The method you described may answer, but all manipulative processes of this kind require much experience

to make them successful. We are convinced that it would pay you better to employ a regular engraver, than to attempt the work yourself.

36/42. **Quinine.**—"An apprentice has accidentally put some bismuth subnit. into a bottle containing quin. sulph., and they have mixed. I shall be glad if you can tell me how to separate them, or how to utilise them. There is about 1 oz. of quin. sulph., and about 2 oz. or 3 oz. of bismuth."—"We should recommend the following plan:—Boil the mixed powders for some minutes in 2 pints of distilled water, in a glass or stoneware vessel, remove from heat, let it stand for a few seconds, then pour off the clear liquid. This will contain all the quinine, which will be deposited in crystals when the solution cools. It may then be drained, pressed between blotting-paper and carefully dried at a low temperature. The mother liquor will retain only a few grains of the quinine. The bismuth should then be boiled with successive half-pints of water, draining between each, until the liquid that comes off does not taste bitter. It may then be dried and used.

37/1. **Chamie.—Hair Lotion.**—In some cases lotion containing cantharides will stimulate the growth of the hair. When, however, the weakness is constitutional and not affecting the hair-roots alone, nothing can be done until the main cause is removed. A mixture of 4 oz. sal volatile, ½ oz. castor oil, and ½ oz. tincture of cantharides is a good stimulating lotion.

38/13. **Mottled Soap.**—*Sapo.*—The marbled appearance in soap is produced by pouring any desired pigment on the surface of the soap just before the final drying and stirring the mixture a few times according to the rule of the thumb. It is entirely a matter of experience and manipulation, and cannot be conveyed by words. Try and obtain access to a large soap factory, and watch the operation.

36/33. **Lead Alloy.**—*Pharmacist.*—Antimony is used in lead alloys to harden and whiten them, as in type metal, &c. It will not give a black or dark mixture. You will be unable to make any alloy of lead which will be black or dark in colour. For the lettering of the exposed monument we should be inclined to use asphalt mixed with enough Canada balsam to make it less brittle, or the paints made by the Silicate Paint Company. It is quite certain that no alloy will answer or give a slightly result.

36/63. **Fehling's Solution.**—*A. E. C.*—The preparation of Fehling's solution is fully described in Suttou's "Volumetric Analysis," Attfield's "Chemistry," and Muter's "Chemistry." 35 grammes pure crystallised cupric sulphate are dissolved in a little distilled water; 173 grammes of sodium potassium tartrate are added. 60 grammes of pure potassium hydrate are then added to entirely dissolve the precipitate, and the mixture is made up to one litre, and very carefully preserved. It can hardly be made with success by any but a practised analyst.

35/37. *D. T. H.* asks:—"Can you tell the necessary form to use in making a will so that a chemist may leave his business to be carried on by or for his widow, until a son is able to take it, or for an indefinite period?"—"It would certainly be best to employ a lawyer for such a case, as the form would possibly vary according to other provisions of the will. The simplest form would be to 'give, devise, and bequeath to my son . . . the right and title to the chemist's and druggist's business now carried on by me at . . . the said business to be held in trust for the said . . . by . . . [and . . .] until such time as he shall himself become legally qualified to conduct it himself.' Under such a trust it would, of course, be necessary to employ a fully qualified assistant as manager. The widow might be joint or sole trustee.

34/36. **Fruit.**—Infringement would not depend exclusively on the wording of the label. Much importance would be attached to the more or less remote imitation of the package as a whole. As a general principle you should bear in mind that a court of equity will not permit B to take advantage of a reputation which A has acquired, probably by extensive advertising. We are disposed to think that in the case you suggest the label (having regard to that alone) would be within the line of legal safety; but our advice would be to keep as far from the line as possible—not to go as near to it as may be safe.

28/60. *A Subscriber (Ireland).*—Anyone who was a chemist and druggist in business (whether alone or in partnership) previous to 1875 will have the same rights now as he had then; that is, practically, the right to use the title.

#### THE PATENT MEDICINE TRADE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

DEAR SIR,—The business of proprietary preparations being now nearly worthless to the trade, will you allow me to suggest a system which will exterminate the underselling vermin in this branch of the profession. The proprietors have it entirely in their own hands. First, supply the trade direct, all at one price only, without the medium of wholesale houses. Second, supply only for cash with order. Third, contract with some carrier to deliver free all over the United Kingdom. Fourth, stop the supply on proof of underselling. Fifth, stamp the name and address on the label of every bottle of the customer to whom it is supplied.

I have no hesitation in saying that good preparations, well advertised, and supplied to respectable chemists only, would be received, patronised, and the sale forwarded by the whole respectable portion of the trade.

I am, Sir, yours respectfully,

FREDERICK PARSONS.

Leicester, June 9, 1879.



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## PHILIP HARRIS & CO.,

MANUFACTURING WHOLESALE & EXPORT CHEMISTS, BIRMINGHAM.



We ask  
reference to  
the announcement of  
MESSRS. W. R. WARNER

& Co., on p. 59. Detailed Price

Lists of the Formule in stock are now  
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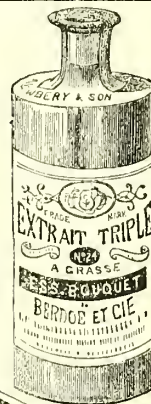
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The attention of the Trade is asked to **BERDOE'S  
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This article has proved itself worthy of appreciation,  
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Local Debility  
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This is no conjecture, but an established scientific fact, and it must be admitted that PULVERMACHER'S GALVANIC CHAIN-BANDS, by supplying this electrical deficiency, constitutes Nature's most congenial curative in the ailments referred to, embodying a host of remedies in one.

Thirty years' successful experience has proved the marvellous remedial powers of these appliances, even in cases defying ordinary treatment.

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For securing a Warm and Comfortable Application, free from possible counter-irritation, any of the above Band can be Felted, if required, at an extra cost of from 1s. upwards.

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A most Liberal Reduction allowed to the Medical Profession, Chemists and Druggists, and Hospitals.

THE CONTINUOUS VOLTA-ELECTRIC CURRENTS, rendered most conveniently self-applicable by recent improvements of these Chain-Bands, although applied externally, penetrate to the innermost organs, promoting digestion, circulation, and nutrition, and perform their recuperative and restorative work in a silent, natural way, devoid of the costliness, uncertainty and inconvenience of ordinary treatment, or of any unpleasant sensation or shocks, counter-irritation, &c.

Even a Five Shilling Band of the minimum electric power evinces its genuineness by deflecting a telegraphic needle at many miles' distance, whilst those of superior price and power produce all the physical, chemical, and physiological phenomena possessing the famous curative powers of the voltaic battery, enhanced by their great portability.

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COMPLETE SET, WITH BELT AND VOLTA-ELECTRIC BATTERY.  
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G. CHAIN BATTERIES for Extreme Nervous Debility, Paralysis, and for Restoring Exhausted Vital Energy (to be used in conjunction with specially combined Bands) ..... £3 10s. to 5 guineas.

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* Specially subject to fluctuation.					
			Spent Pomade (French)		per 20 ozs. 1/-
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C	Plain " " " (1½ oz.)	1/6	11/-		F	Round Bottle Lavender Water (3 oz.)	"	1/-
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Also Sixpenny Bottles of Perfume, Fountain Perfumes, &c., &c.

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"My DEAR SIR,—You have submitted for my inspection various samples of your SUGAR-COATED PILLS. I have examined them carefully, and can pronounce them both PERFECT and ELEGANT. I speak from my personal knowledge of your character and ability, and I regard the length of your practical experience in manufacturing them as a speciality as the surest guarantee of their excellence."—Yours very respectfully, JOHN M. MAISCH, U.S. Army Laboratory, now Professor in Philadelphia College of Pharmacy.

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Price per 100, per 500.			Price per 100, per 500.			Price per 100, per 500.		
No.	s. d.	s. d.	No.	s. d.	s. d.	No.	s. d.	s. d.
23. Pil. Aloes et Assaf. B.P.	1 0	4 3	46. Pil. Acid. Arsenious ..	1 0	4 3	67. Pil. Rhei. Comp.	2 0	9 3
26. " Aloes Barbado. B.P.	1 0	4 3	47. " Ague ..	2 3	10 6	68. " Strychnia, $\frac{1}{10}$ gr.	1 0	4 3
27. " Aloes et Ferri. B.P.	1 0	4 3	48. " Aloes et Mastich ..	1 6	6 9	69. " Iodoform et Ferri	6 0	—
28. " Aloes et Myrrh. B.P.	1 0	4 3	49. " Antibilious ..	1 6	6 9	70. " Analeptic ..	2 0	9 3
29. " Aloes Socot. B.P.	1 0	4 3	50. " Antidyspeptic ..	2 3	10 6	71. " Anodyne ..	2 3	10 6
30. " Assafet. Comp. B.P.	1 3	5 3	51. " Aperient ..	2 3	10 6	72. " Antichlorotic ..	2 3	10 6
31. " Gambogia Comp. B.P.	1 0	4 3	52. " Camphor et Hyoscyami	1 6	6 9	73. " Antichoromania ..	2 3	10 6
32. " Cinchonidia Sulph. 1 gr.	1 8	7 11	53. " Cathartic Co. (Exotic)	1 6	6 9	74. " Antispasmodic ..	2 3	10 6
33. " " 2	3 0	14 3	54. " " (Improved)	1 6	6 9	75. " Antiperiodic ..	2 3	10 6
34. " " 3	4 3	20 6	55. " " (Vegetable)	1 6	6 9	76. " Antispasmodic ..	2 0	9 3
35. " Colocynth. Comp. B.P.	2 0	9 3	56. " Emmenagogue ..	3 0	14 3	77. " Astringens ..	2 0	9 3
36. " Colocynth. et Hyoscyami, B.P.	2 0	9 3	57. " Ext. Belladonnae $\frac{1}{2}$ gr.	1 0	4 3	78. " Cathartic (Cholagogue)	2 0	9 3
37. " Conii Comp. B.P.	1 3	5 6	58. " Ext. Nuc. Vomicae $\frac{1}{2}$ gr.	1 0	4 3	79. " Ecceproptic ..	2 0	9 3
38. " Ferri Carb. B.P.	1 3	5 6	59. " Ferri Iodid. ..	2 0	9 3	80. " Laxativa ..	2 0	9 3
39. " Hydrargyri, 3 gr. B.P.	1 3	5 6	60. " Morphia Sulph. $\frac{1}{2}$ gr.	2 0	9 3	81. " Sedativa ..	2 3	10 6
40. " Hydrarg. Subchlor. Co. B.P.	1 3	5 6	61. " Neuralgie ..	8 6	—	82. " Tonic ..	2 0	9 3
41. " Ipecac. cum Scilla, B.P.	1 3	5 6	62. " Opil, Camph. et Tanniu..	2 3	10 6	83. " Hydrarg. 5 grs.	1 6	—
42. " Plumbi cum Opio, B.P.	2 0	9 3	63. " Podophyllin, $\frac{1}{2}$ gr.	1 0	4 3	84. " Iodide of Mercury, $\frac{1}{2}$ gr.	1 0	4 3
43. " Quinia, 1 gr.†	7 0	34 3	64. " Podophyllin Co. ..	2 0	9 3	85. " Cathartic Co. ..	1 6	6 9
44. " Saponis Comp. B.P.	2 0	9 3	65. " Quin. et Ferri et Strychnia	5 0	24 3	86. " Diuretic ..	1 6	—
45. " Scilla Comp. B.P.	1 3	5 6	66. " Quinia Sulph. 2 gr.†	13 8	67 7	87. " Ferri Pyrophos. 1 gr.	1 3	5 6

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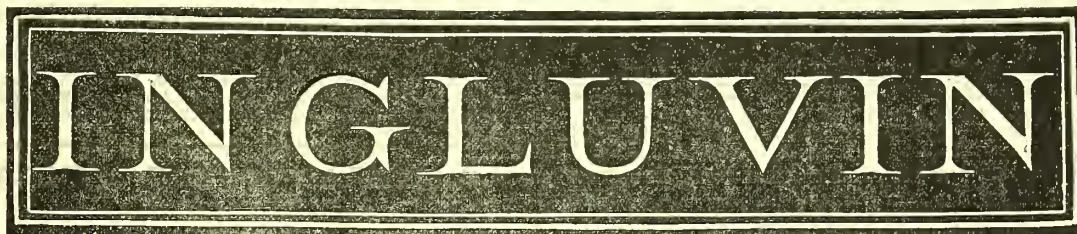
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BY A. F. SHELLEY, M.D., OF PHILADELPHIA.

A specific for VOMITING IN PREGNANCY, a potent and reliable remedy for the cure of INDIGESTION, DYSPEPSIA, and SICK STOMACH, caused from debility of that organ.

This is obtained from the gizzard of the domestic fowl (chicken) and is a Specific for Vomiting in Pregnancy. I have used this remedy for twenty-five years, and it has never failed. It is also the most powerful and reliable remedy for the Cure of Indigestion, Dyspepsia, and Sick Stomach, caused from debility of that organ. It is useful in all cases where peptic and pancreatic are used, but with much more certainty of its good results, for it puts all those preparations, in my experience, in the background.

PRICE PER BOTTLE, 4/-.

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**CELESTINS**—The water of this Spring is very agreeable, sparkling, and slightly acidulated. Remedy for Complaints of the Kidneys, Gravel, Gout, Diabetes, Rheumatism, &c.

**HAUTERIVE**—This Spring contains a greater quantity of carbonic acid, and is especially recommended as a Table Water.

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**VICHY WATERS** are pleasant to the taste, and may be drunk pure or mixed with Wine or Spirits.

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The Lozenges are flavoured with peppermint, lemon, vanilla, rose, orange flowers or anisette.

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	Caustic Soda $N_2O$	::	::	22.204	
	Water of Crystallisation	::	::	40.982	
	Sulphate, Chloride, Carbonate, &c.	::	::	.279	

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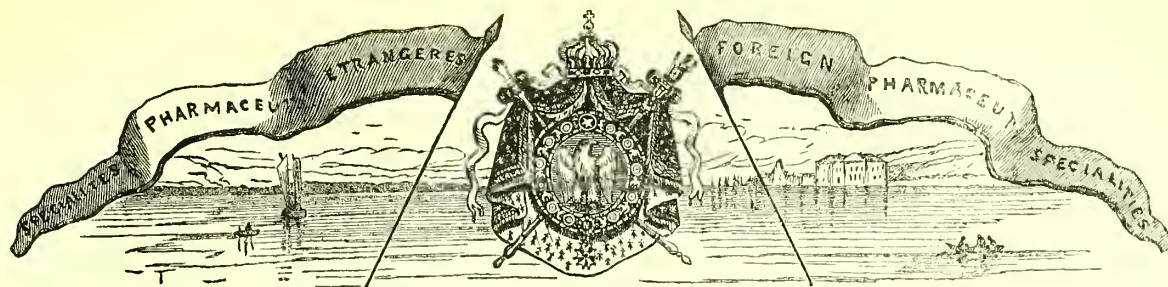
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6/0..Alcool de Menthe Riquès	42/	4/6..Capsules Raquin	30/	6/0..Rabuteau's Elixir Ferrug.	48/
2/9.. Ditto ditto	21/	4/6.. " Mathey Caylus	22/	3/6.. " Sirop	27/
3/6..Aubergier's Syrup	27/	4/6..Chassaing's Wine	36/	4/6..Racahout	33/
1/9.. " Pâte	13/	2/9.. " Pills	25/	5/0..Reynal's Bougies	42/
6/6..Bay Rum	54/	4/6..Clin's Bromide Camph. Caps	45/	3/6..Ricord's Injection	24/
3/6.. Ditto	27/	4/6.. " " Dragées	45/	4/6.. " Capsules	34/
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1/9.. " Lezenges	13/	4/6.. " Wines	36/	2/0..Star Paper	15/
4/6..Blancard's Pills	30/	5/0..Eau Botot	42/	2/6..Tamar Indien	21/
2/9.. Ditto	18/	3/0.. Ditto	26/	2/9..Vallet's Pills	24/
4/6..Brou's Injection	26/	2/3..Espic's Cigarettes	15/	1/6.. Ditto	13/
4/6..Bugeaud's Wine	36/	2/9..Flon's Syrup	23/	4/6..Vcloutine (White and Rose)	39/
4/6..Bully's Vinegar	33/	2/6..Gayetty's Paper	18/	3/6.. Ditto ditto	30/
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4/6..Candé's (Lait Antéphilique)	40/	2/3.. " Iron	15/	4/6..Valentine's Meat Juice	45/
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4/6.. " Matico	30/				

Above prices do not include stamps; in those cases where they are necessary they will be supplied and charged extra.

*MM. Roberts & Cie. ont l'honneur d'informer MM. les Pharmaciens Spécialistes de France et de l'Étranger qu'ils se mettent à leur disposition pour des dépôts qu'ils voudraient établir à Londres. On peut avoir tous renseignements en s'adressant à leur maison de Londres ou à Paris.*

House in Paris, ROBERTS & CO., Place Vendome, 23.

ESTABLISHED 1823.

# KEMPTHORNE, PROSSER & CO.

(SUCCESSORS TO H. E. YOUNGMAN & CO.),

## WHOLESALE DRUGGISTS,

DRUGGISTS' SUNDRYMEN,

## IMPORTERS AND COMMISSION MERCHANTS,

Dunedin and Auckland, New Zealand.

*Foreign Advertisements—continued.]*

## CHOCOLAT MENIER FOR BREAKFAST.

AWARDED THE HIGHEST PRIZE AT THE PARIS EXHIBITION, 1878.

## CHOCOLAT MENIER FOR LUNCHEON.

AWARDED THE HIGHEST PRIZE AT THE PARIS EXHIBITION, 1878.

## MENIER'S COCOA

REQUIRES NO BOILING.

Sold in  $\frac{1}{4}$  lb.,  $\frac{1}{2}$  lb. Packets, & 1 lb. Tins, by Grocers, Confectioners, and Chemists.

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Sold in  $\frac{1}{2}$  lb. and 1 lb. Tins, by Grocers, Confectioners, and Chemists.

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## MENIER'S CHOCOLATE POWDER

REQUIRES NO BOILING.

Sold in  $\frac{1}{2}$  lb., 1 lb., and 2 lb. Tins, by Grocers, Confectioners, and Chemists.

AWARDED THE HIGHEST PRIZE AT THE PARIS EXHIBITION, 1878.

## CHOCOLAT MENIER

Annual Consumption exceeds 17,000,000 lbs.

AWARDED TWENTY-THREE PRIZE-MEDALS from 1832 to 1878.

The Healthiest, Best, and Most Delicious Aliment for Breakfast known since 1825; defies all honest competition. Unadulterated, Highly Nutritious, and Pure.

WHOLESALE: SOUTHWARK STREET AND WORCESTER STREET, BOROUGH.

## BRITISH DISPENSARY, SHANGHAI, CHINA.

Agencies of every description undertaken.

GOODS SOLD ON COMMISSION.

**B. STRACHAN,**  
Manager.

Established 1866.

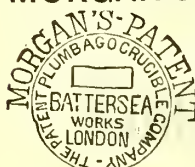
## SAVARESSE'S CAPSULES

Of membrane, each containing 10 drops Purest Yellow

## SANDAL WOOD OIL.

The efficacy of this valuable medicine is due to the absolute purity of the oil, and to the very gradual solvability of the membrane as compared with gelatine. [These may advantageously alternate with SAVARESSE'S CAPSULES OF BALSAM COPAIVA.] Box (24 Caps.) 4s. 6d. Full Directions. All Chemists.

## MORGAN'S PATENT CRUCIBLES



HAVE RECEIVED AT EACH EXHIBITION THE HIGHEST AWARD made for CRUCIBLES. The quality is uniform, withstanding the greatest heat without danger, and they never crack. Porous Battery Cells, &c., are manufactured by

**THE PATENT PLUMBAGO CRUCIBLE COMPANY,**

TRADE MARK.

BATTERSEA WORKS, LONDON, S.W.

## CHEMIKER - ZEITUNG. CÖTHEN.

Wöchentlich erscheinendes Fachblatt

Für Chemiker, Techniker, Fabrikanten, Apotheker und Ingenieure.

Correspondenzblatt chemisch-technischer Vereine.

**CHEMISCHES CENTRAL - ANNONCENBLATT.**

Herausgegeben u. verlegt von Dr. G. KRAUSE in Cöthen.

Durch alle Postanstalten (1. Nachtrag, 1. Abtheilung 855a verzeichnet) und Buchhandlungen des In- und Auslandes zu beziehen. Preis vierteljährlich 3 M., durch die Exped. d. Bl. unter Streifband 4 M., Ausland 5 M.—Der Raum der einspaltigen Zeile 30 Pf., erbeten durch die Expedition des Blattes in Cöthen od. alle Annoncen-Expeditionen. **BEILAGEN** werden angenommen.

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*Foreign Advertisements—continued.]***BAUDON'S RESTORATIVE TONIC WINE.***Prescribed with Great Success in Consumption and Wasting Diseases, &c.*The *Lancet* recommends it as a substitute for Cod Liver Oil in Pulmonary and other complaints.The *Medical Times and Gazette* says—"In our Hospital Reports of May 12th, 1877, we reported a case of pulmonary disease in the London Hospital, in which very marked improvement took place during the exhibition of this wine, without any other medical treatment. It is a very agreeable remedy, the basis being a pure muscat wine, and its usefulness is attested by the names of physicians and surgeons of high standing and repute."The *London Medical Record* says—"It is a wine of most agreeable flavour and good alcoholic strength, and is recommended as an agent in strumous and phthisical diseases. A considerable amount of evidence of its effects is said to have been accumulated in the experience of Dr. Labbé, senior surgeon to La Pitié, Dr. Gombault, Dr. Molland, senior physician of the Hospital St. Antoine, Dr. Jules Worms, and in this country by Dr. Langdon Down, Dr. Thorowgood, and other well-known physicians. Its peculiarly agreeable character and favourable influence on the digestion are especial recommendations of the 'Vin de Baudon.'"The *Sanitary Record* says—"It is extensively used in the Paris Hospitals as a tonic and restorative in phthisis, strumous disease, and after severe surgical operations."The *Chemist and Druggist* says—"It is an extremely popular preparation, and is very agreeable."*May be obtained of all the principal Chemists. Price, stamped, 4s. 6d. per bottle.*SOLE  
ENGLISH AGENTS,**PAGNY, WALLACE & CO., 48 Finsbury Circus.****H. RUBECK**

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the Trade to his  
English-Drawn  
OIL  
OF CLOVES.

**OLEUM  
OLEUM  
FINEST  
ENGLISH  
DRAWN.**



**CARYOPH.  
CARUI.  
GUARANTEED  
PURE AND  
UNADULTERATED.**

It is guaranteed  
perfectly Pure, and equal  
to any other make  
both in quality and  
aroma,  
although considerably  
cheaper.  
It may be obtained of  
all the principal  
Wholesale Druggists.  
A fair trial is solicited.

# THOMAS PARKER, APOTHECARY AND PHARMACEUTIST.

An extensive Business connection among the Planters  
and South Pacific Traders enables me to introduce  
with advantage goods suited to the requirements  
of the Islands.

**LEVUKA, FIJI ISLANDS.**

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THE PARIS HOSPITALS HAVE USED NO OTHER

VIENNE 1873.

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*The Jury of the International Exhibition, Paris, 1867, awarded to Boudault's Preparations the only Medal given for Pepsine. Since that time it has taken the Medal at each of the International Exhibitions—Havre, Lyons, Vienna, Philadelphia.*

Boudault's Pepsine — dose, 5 to 10 grains.

Also Neutral Pepsine — Pepsine with Morphia — Pepsine with Strychnia — dose, 5 to 10 grains.  
Pepsine Wine, in bottles 4/. and 8/. — dose, a tablespoonful. Pepsine Elixir, in bottles, 4/. — dose, a tablespoonful.  
Pepsine Lozenges, in bottles, 3/. Pepsine Pills, in bottles, 3/.

**HOTTOT BOUDAULT, 7, Avenue Victoria, Paris. P. & P. W. SQUIRE, 277, Oxford Street, London.**

MAY BE HAD OF ALL CHEMISTS.

# CORBYN, STACEY & CO.,

Wholesale and Export Druggists,  
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An obvious and necessary preventative of accidents from Chloral is to sell and dispense only a **UNIFORM** and **GUARANTEED** preparation, such as **LIEBREICH'S SYRUP OF CHLORAL**, which has received the approval of the general Medical Press in Great Britain. The strength is the same as that of the official preparation, viz, Ten Grains of Chloral in each Fluid Drachm. Bottles bearing Dr. O. Liebreich's Signature and the name of Corbyn, Stacey & Co., 2s. and 3s. 6d. each; and 1 pound bottles for Dispensing.

**Pepsin-Essenz-Liebreich.**—"The researches of Panum and Preyer have shown that of the various solutions the best is the Pepsin-Essenz of Oscar Liebreich." Bottles, 3s. each, bearing the name of the **SOLE AGENTS**, Corbyn, Stacey & Co.

**Chaulmoogra Oil—Ol. Gynocardia.**—The official remedy in India for Leprosy, Scrofula, Skin Diseases, and Rheumatism; Secondary Syphilis and Ringworm have also been successfully treated with it. It is subject to constant adulteration. CORBYN & Co.'s Oil is expressed from the **fresh seeds**; and is pure. See the *Pharmacopœia of India*, and also Mr. Lepage's Pamphlet (post free 1s.). Bottles, 4s. 6d. Perles or Small Capsules, Boxes, 2s.; Ointment in Pots, 1s. 9d., 3s., 10s. 6d. each.

**Phosphorus Perles**,  $\frac{1}{30}$ ,  $\frac{1}{60}$ , or  $\frac{1}{100}$ th of a grain of Phosphorus in each. Neither taste nor smell of Phosphorus is perceived by the patient. Bottles, 2s., 3s. 6d., and 6s. each.

**Malt Extract**, prepared *in vacuo*.

*CORBYN & CO.'S General Prices-Current will be sent to the Trade on application.*

## THE DRUGGISTS' CIRCULAR & CHEMICAL GAZETTE

Is Published Monthly, at

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SEVEN SHILLINGS and SIXPENCE Sterling, postage prepaid.

The **Druggists' Circular** usually contains from 32 to 42 quarto pages of extra large size consisting of literary matter and advertisements. It has reached the 21st year of publication, and has, probably, a much larger circulation than any similar periodical issued in the United States.

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One Page.	{	For 12 insertions	...	...	£88 0 0	Fourth of Page, One Column.	{	For 12 insertions	...	...	£30 0 0
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# PRECIPITATED CHALK.

Guaranteed Finest and Purest Quality.

MANUFACTURED BY LEVERMORE BROTHERS.

13 CULLUM STREET, LONDON.

Being the largest Manufacturers, are prepared to execute orders at a special reduction in price.

APPLICATIONS FROM BUYERS ARE INVITED.

## EARP & CHASTER, RUNCORN,

Makers of PURE NITRIC, HYDROCHLORIC, and  
SULPHURIC ACIDS,  
PURE 880 LIQUOR AMMONIA, &c.

Quantities of five dozen Winchesters delivered free within  
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E. & C. can offer great advantages to Shippers to America.

ESTABLISHED 1843.

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WHOLESALE & EXPORT

## HOMŒOPATHIC CHEMISTS,

55 Bold Street, Liverpool,

AND

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## NEW ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER have recently purchased  
the long-established business of HENRY TURNER  
& CO., Manchester, which they now carry on under  
their own name.

## THOMPSON & CAPPER'S DENTIFRICE WATER

Is kept by T. & C.'s Agents throughout the world.

PRICE CARD ON APPLICATION.

THE ACME OF PERFECTION.

## SHAPED PLASTERS.

Emp. Belladonna, Opium, &c.

Spread on White Leather, with

## ADHESIVE MARGIN.

Shape	Size	Shape	Size
Square	4½ x 5½	Oblong	6½ x 11
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Saddle	4½ x 9½	Heart	5 x 7
Oblong	4½ x 7		6½ x 8½
"	5½ x 9½	For Breast	7 diameter
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Terms on application to the Sole Manufacturers,

GOOSEY & ROGERS, Chemists,  
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Can be ordered through any Wholesale House.

## APERIENT FRUIT LOZENGES.

Prepared from the bark of the Rhamnus Frangula, a medicine which has been described on high authority as "the only real aperient we have"; all others usually classed under that name being drastic in their operation and often injurious in their after effect. They are extremely palatable, and children take them readily as a sweetmeat. "Mild and uniform in their operation."—*Lancet*. "The lozenge is an excellent and exceedingly mild form of laxative, especially suitable for children and delicate people."—*Birmingham Medical Review*. "They are very mild, and will probably be found very useful for children and delicate women."—*Medical Times and Gazette*. "These Lozenges are now extensively prescribed by several of the leading medical men in London and other cities. They are not to be considered a patent or quack medicine in any respect."—*The London Medical Record*.

The attention of the profession and of pharmacists is especially called to these Lozenges. They are extremely palatable. Children take them readily as a sweetmeat.

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H. C. BAILDON & SON, Pharmaceutical Chemists  
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Sold in Boxes at 2s. & 3s. 6d. by all Chemists.

And in Bottles for Hot Climates, at 2s. 3d. and 3s. 9d. each.

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TRADE MARK.



This Preparation, originated by us Eight Years since, can be obtained direct or through the Wholesale Houses.

4s. per lb.

SYMES & CO., LIVERPOOL.

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**PURE COD LIVER OIL**In 25-Gallon  
CASKS,

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In Half-Gallon  
WINCHESTERS,**8/3** per Gallon.

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Every Package is either Sealed or Capsuled with the above Registered Trade Mark.

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General List of Drugs, Chemicals, &amp;c., posted free on application.

**ETHYLATE  
OF SODIUM.**  
(DR. RICHARDSON'S FORMULA.)  
FOR DESTROYING NÆVI  
and other Vascular Growths.

*Vide LANCET, Nov. 9th, 1878.*

In  $\frac{1}{2}$  oz. and 1 oz. Bottles, with elongated  
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**CODDEN'S QUININE &  
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THE BEST NERVE TONIC,  
GIVE STRENGTH & ENERGY TO  
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SINGLE CIRCULAR, VERY LIGHT AND NARROW SPRING, imper-		COLE'S EXPIRED PATENT TRUSSES, Single, covered best Doeskin	48/ and 3 0 0
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R. & SONS respectfully call attention to their No. 1 FLAX LINT, made from PURE LINE Yarn, making a beautifully soft, fine Lint. Their No. 3, 0, and 00 COTTON LINTS are used in the largest Hospitals of the United Kingdom. No. 0 SURGEON'S LINT is a medium quality, and well adapted for Export. No. 1 SURGEON'S LINT is a beautiful Lint for private practice, and always gives satisfaction.

Our **LINTS TEAR EASILY**, but Nos. 00, 0, and 1 Surgeons' more readily across the Fabric.

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In 100-lb. Tins,  
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## DR. H. A. MARTIN'S

# PURE RUBBER BANDAGES (GENUINE)

For Ulcers and other Diseases of the Legs, and certain Diseases and Injuries, and  
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Each Bandage bears the signature of Dr. H. A. MARTIN, without which none is genuine, and can only be had from  
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*Is Turkey Opium of Standard Quality.*

It is distinguished from crude Opium of commerce by its freedom from Narcotine, Fat, Caoutchouc, and odorous matter, and by its unvarying strength as regards Morphia, of which alkaloid it invariably contains 10 per cent. when powdered, or 9 per cent. when in mass.

The Trade will find the above Powder the most satisfactory kind of Opium for preparing the tincture, sedative solution, and, indeed, for every pharmaceutical preparation into which Opium enters.

Present Price—Powder, 30s. per lb.; Mass, in 1-lb. Blocks, 27s., subject to fluctuation.

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The Alkaloids of East Indian Red Bark (*Chinchona Succirubra*), Quinine, Cinchonidine, Cinchonine and Amorphous Quinine.

## QUINETUM SULPHATE,

The Crystallizable Sulphates of the Alkaloids of *Chinchona Succirubra*.

The above Preparations are very valuable remedial Agents, at a cost of LESS THAN HALF that of QUININE.

## QUININE SULPHATE,

White and Unbleached.

## STRYCHNINE

(HULLE's), and its Salts.

## SALICINE.

# PRECIPITATED CHALK, WHITEST AND PUREST QUALITY,

MANUFACTURED BY DUNN & COMPY.

(LATE OF PRINCES SQUARE, FINSBURY),

MANUFACTURING CHEMISTS,

**STIRLING CHEMICAL WORKS,  
 WEST HAM, E.**

## THE NORTH BRITISH CHEMICAL CO., Limited, GLASGOW AND LONDON.

### OFFICES—

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GLASGOW:  
 149 HOPE STREET.

GEORGE PUGH, AGENT.

### MEDALS AWARDED.

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LONDON	1862.
DUBLIN	1865.
PARIS	1867.
HAVRE	1868.
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IODINE AND RESUBLIMED IODINE.  
 IODIDE AND BROMIDE POTASSIUM.  
 CHLORATE POTASH.

CAUSTIC SODA, WHITE, 60%.

SEAWEED CHARCOAL, &c.

THE TRADE SUPPLIED THROUGH THE LONDON and PROVINCIAL WHOLESALE DRUG HOUSES.  
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Works:—Hornsey Road, N., and Summerfield Works, Homerton, E., London.

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SPECIALITIES:—

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MORSON'S PANCREATISED COD-LIVER OIL.

MORSON'S PHOSPHORISED COD-LIVER OIL.

MORSON'S SACCHARATED WHEAT PHOSPHATES.

MORSON'S CREOSOTE (from Wood Tar). The only English Makers.

N.B.—Test of Purity—Insoluble in Price's Glycerine.

MORSON'S GELATINE. (The most economical substitute for Isinglass.)

MORSON'S CHLORODYNE.

MORSON'S CHLOROFORM (from Pure and Methylated Spirit).

We guarantee our Chloroform, prepared from Methylated Spirit, to be "Pure" Chloroform, and to answer all the tests of the Pharmacopœia

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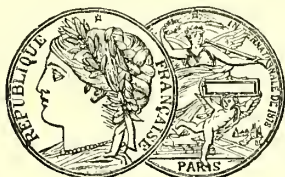
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Sold Wholesale and Retail by all Chemists and Druggists throughout the World.

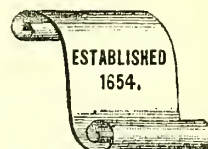
TRADE MARK.



SILVER MEDAL,  
INTERNATIONAL  
EXHIBITION,  
PARIS, 1878.



SILVER MEDAL,  
INTERNATIONAL  
EXHIBITION,  
PARIS, 1878.



## GEORGE ATKINSON & CO.,

(Late ATKINSON & BIGGAR),

### CHEMISTS, DRUG GRINDERS, &c.,

66 Aldersgate Street, London, E.C.,

Manufacturers of

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AND OTHER CHEMICALS.

**CAMPHOR REFINERS. LINSEED CRUSHERS.**

All our preparations, guaranteed pure, can be obtained of any of the leading Wholesale Druggists throughout the United Kingdom.

**SCHERING'S**  
**PURE CHEMICALS.**  
**ACID GALLIC, TANNIC, PYROGALLIC.**  
**GLYCERINE**, extra re-distilled, 1260.  
**KOLBE'S PATENT**  
**SALICYLIC ACID AND SALTS.**  
**POTASS BROMIDE AND IODIDE.**  
 Purest, indifferent to Baryta Salts.  
**PHOTOGRAPHIC PURE CHEMICALS.**

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*All Preparations Manufactured and Warranted by the*

**"Chemische Fabrik auf Actien, vormal's E. SCHERING," Berlin,**  
*Represented in the United Kingdom and the Colonies by*

**A. & M. ZIMMERMANN, 21 MINCING LANE, LONDON, E.C.,**  
 Agents for Tinctures, Spirits, and Ethers in bond, and Essential Oils and Drugs generally.

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**Genuine Crushed Linseed**, 20s. per cwt., net cash.

**Liquor Limonis**, or Soluble Essence of Lemon, 4s. 6d. per lb.

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*These Essences give a fine flavour and aroma to Lemonade, Orangeade, and Gingerade.*

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 In Strong Iron Drums for Export.  
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Used in PHARMACY and in PHOTOGRAPHY, of guaranteed purity, put up specially to suit the various Markets.

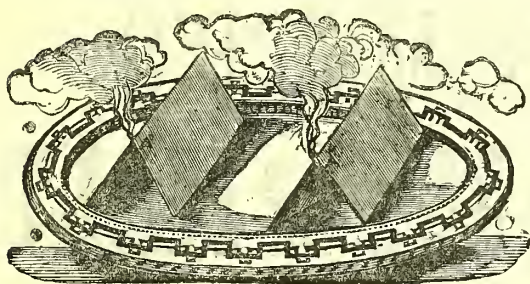
**Merck's Morphia, Alkaloids, Santonine, and other pure Chemicals.**

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**German Bromide and Iodide of Potassium, VERY PURE.**

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## OZONE PAPER,

FOR THE IMMEDIATE RELIEF AND SUBSEQUENT CURE OF

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**DIRECTIONS.**—Fold and place one or two pieces of paper on a dish, and light the top at point A. A dense fume will then arise and gradually fill the room; and after inhaling it for a few minutes the air-tubes will be cleared of mucus, difficult respiration will cease, and the patient will fall into a sound and refreshing sleep. The outer air must be excluded by keeping the windows, doors, and chimney closed. The paper may be burnt in the day as well as at night if necessary.—Price 2s. 9d., 4s. 6d., and 11s. per box.

## OZONE CIGARETTES.

**DIRECTIONS FOR USE.**—A Cigarette may be lighted at either end, and a large volume of smoke should be drawn into the mouth, then a full inspiration taken to convey it into the air-tubes, when instant relief will be afforded.—Price 2s. 6d. per box.

This remedy is advertised in the *Lancet* and *British Medical Journal*; it is therefore known to members of the Medical Profession, by whom it is recommended.

Prepared by R. HUGGINS, Chemist, 199 STRAND, LONDON.

## Fox's "palatable" Cod Liver Oil

**FOX'S "PALATABLE" COD LIVER OIL WITH QUININE.**

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Chemists, Storekeepers, Shippers, and others who have not hitherto dealt in these Oils, would do well to order a trial assortment, as they invariably give the greatest satisfaction when once used. No other Proprietary Medicines are so largely recommended by, or have received so many commendations from, Physicians as these—see circulars, which may be had from all Wholesale Houses. They are specially prepared for shipment, and will stand any climate.

FOX'S "PALATABLE" COD LIVER OIL, 1s., 2s., 3s. 9d.; with QUININE, 2s. 6d., 4s. 9d. FOX'S "PALATABLE" CASTOR OIL, 6d., 1s.

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## OL. LAVAND. RECT.

Refined by our Special Process, this Oil is nearly equal to that of Mitcham. Price 21s. per lb., of

**SYMES & CO., LIVERPOOL,**  
AND THE WHOLESALE HOUSES.

**INDEX TO ADVERTISEMENTS,**

See Pages 33 & 34.



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CASTLE GATE, NOTTINGHAM,  
Inventor and Manufacturer of  
**ELASTIC STOCKINGS, KNEE-CAPS,**  
**LEGGINGS, &c.,**

The most efficient means of supporting Varicose Vein, Weakness, Sprains, Dislocations, &c.

**NEW IMPROVED ELASTIC ABDOMINAL SUPPORTING BELT, REGISTERED,**

Always keeps its place.

**TRUSSES, CHEST PROTECTORS, SURGICAL APPLIANCES, AND SUSPENSORY BANDAGES, &c.,**

Made to Order on the Premises.

List of Prices and Directions for Measurement forwarded upon application.

Greatest attention paid to **SPECIAL ORDERS**, which are invariably forwarded per return of Post.

**EVANS, SONS, & CO.,**

56 Hanover Street,

**LIVERPOOL;****H. SUGDEN, EVANS & CO.,  
MONTREAL;****WHOLESALE AND EXPORT DRUGGISTS.****EVANS, LESCHER, & EVANS,**

72 &amp; 74 Golden Lane, Barbican,

**LONDON;****ILLUSTRATED EXPORT LISTS,**

(About 150 pages each) containing Prices of Drugs, Chemicals, Pharmaceutical Preparations, Druggists' Sundries, and Patent Medicines, etc., are Published on January 1st and July 1st in

**ENGLISH,**

and on April 1st and October 1st in

**SPANISH,**

and will be sent Post Free to any part of the World on application.

The above Lists offer unusual advantages as a Medium for Advertisements.

Makers of Proprietary Medicines, Perfumers, &c., by advertising in same, will have their specialties brought prominently under the notice of dealers in all parts of the world. Terms for advertising (which are strictly moderate) may be obtained by applying to Messrs. EVANS, SONS & Co., 56 Hanover Street, Liverpool. All Advertisements translated into Spanish free of charge.

**TROMMER'S  
EXTRACT OF MALT**

In the following Combinations, viz.:-

**TROMMER'S EXTRACT OF MALT** with Hops.**TROMMER'S EXTRACT OF MALT** with Cod-Liver Oil.**TROMMER'S EXTRACT OF MALT** with Hypophosphites.**TROMMER'S EXTRACT OF MALT** with Pyrophosphate of Iron.

PREPARED BY—

**TROMMER EXTRACT OF MALT COMPANY, FREMONT, OHIO, U.S.**

From "THE LANCET," January 25, 1879.

"We find that this extract converts starch into glucose and dextrine rapidly and in large quantity. In flavour it is excellent, and we have therefore no hesitation in praising it highly."

SOLE WHOLESALE AGENTS—

**LYNCH & Co., 171a & 171b Aldersgate St.,  
LONDON, E.C.**

N.B.—FULL DESCRIPTIVE PAMPHLET FORWARDED POST FREE ON RECEIPT OF APPLICATION.



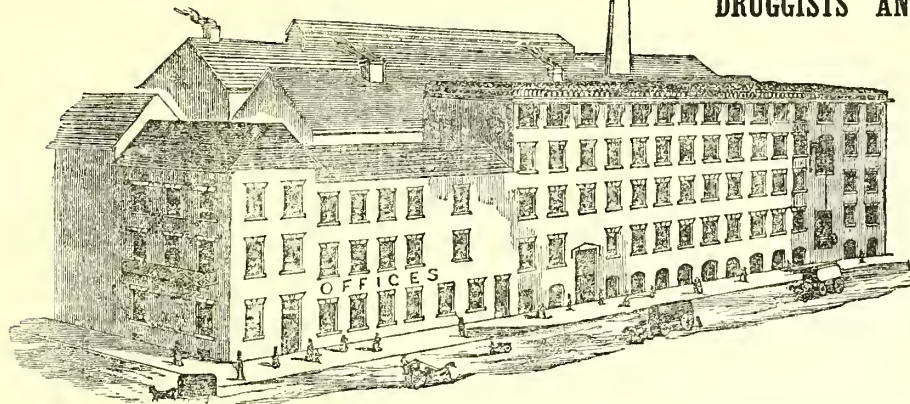
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LABORATORIES AND DRUG MILLS AT COVENTRY.

AND 223 UPPER

THAMES ST., E.C.

(ESTABLISHED 1790.)



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**DRUGGISTS AND DRUG GRINDERS.**MAKERS OF THE FOLLOWING  
SPECIALITIES:

Myrtus Chekan Infusion—  
Fluid Extract and Fluid (see  
*Phar. Journal*, Feb. 8, 1879).  
Oleum Morrhuæ cum Calcis  
Hypophos.  
Chino Quinine.  
Extractum Filicis Maris Liq.  
(from Native Rhizomes).  
Extractum Cocœ Liq.  
„ Gelsem. Semp. Liq.  
„ Guarana Liq.  
Liq. Bisthmuthi (Wyley).  
Spts. Ether Nit.  
Sp. Ammon. Aromat.  
Extracts of all kinds.  
Concentrated Infusions.  
Granular Preparations, &c.

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**Liquor Opii Sedat., Liquor Cinchon. Cord., Liq.  
Cinchon. Pallid., et Liquor Secalis Cornuti.**

**Messrs. BATTLE & WATTS**

(Successors to the late RICHARD BATTLE, and the only makers of his Liquors)

Caution the Public against using any Preparations under the above name, unless the autograph of  
"RICH. BATTLE" is over each Cork and on the Label attached to each Bottle, *without which none is genuine*  
The above are only prepared at the Laboratory, Cripplegate, London, by BATTLE & WATTS.

The following Paper by HENRY DEANE, F.L.S., and HENRY B. BRADY, F.L.S., was read, amongst others, at the Bath Meeting of the  
British Pharmaceutical Conference, September 1864:—

**LIQUOR OPII SEDATIVUS.**

The striking appearance resulting from the evaporation of Battle's Sedative (Plate III., Fig. 1) first drew our attention to the mode of investigation now described. We have examined it frequently and always have met with the same characters. The slides present an almost opaque mass of crystals of morphine salts and codeine, with a very small portion of narcotine (and meconic acid?), and so far as we have observed, complete absence of resinous matter and narceine. *Anyone who has studied the microscopic characters of this preparation will readily understand how it has kept its place with the profession in spite of the cheap imitations which have been so largely puffed as substitutes for it.* Though we have experimented much with a view to preparing a similar liquor, we have not yet arrived at an identical result. Of three makes which we have examined, one (Plate III., Fig. 5) is largely charged with resinous matter, and the proportion of crystalline constituents is so minute that we are satisfied its activity must be very small; another (Plate III., Fig. 4) gives a few morphine crystals, a good deal of narcotine, and more narceine; a third (Plate III., Fig. 6) is chiefly remarkable for its lack of everything crystalline.

**32 Lower Whitecross Street, Cripplegate, London.****DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.****BARRON, SQUIRE & CO.**

(LATE DREW, BARRON, &amp; CO.),

**WHOLESALE & EXPORT DRUGGISTS.****BUSH LANE, LONDON, E.C.,****MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,**

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive  
careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their  
having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the  
various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them  
in all their integrity.

*Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.*

# GOLD MEDAL, PARIS, 1878.

## T. & H. SMITH & CO.,

### EDINBURGH & LONDON,

MANUFACTURERS OF

## SALTS OF MORPHIA, PURE CHLOROFORM, SALICINE, &c.

Of absolute guaranteed purity, and not  
floury. TRIPLY CRYSTALLISED.

10 ozs. at  $\frac{3}{2}$  oz. } Forwarded Free  
5 "  $\frac{3}{3}$  oz. } in all cases on  
Under  $\frac{3}{4}$  oz. } receipt of P.O.O.



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Refiners, Assayers, and  
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PERSONALLY PREPARED BY THE INVENTOR.

### LIQUOR BISMUTHI

(SCHACHT).

Carefully Purified from Arsenic, Copper, Silver, &c. (DOSE, 3j., diluted.)

### SYRUPUS CINCHONÆ ALCOHOLICUS

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BARK MINUS WOODY FIBRE (Dose, 3ss. to 3j.)

*Drachm contains the entire medicinal properties of 20 grains of finest Cinchonæ Bark.*

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Containing respectively 2, 3, or 4 grains of "Monobromide of Camphor" in each.

MANUFACTURED IN THE LABORATORY OF

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And to be obtained of all WHOLESALE DRUGGISTS in LONDON and the PROVINCES.

## EVANS'S EXTRACT OF MALT.

PROFESSOR ATTFIELD, PH. D., F.C.S. (Professor of Chemistry to the Pharmaceutical Society of Great Britain, Nov. 1872), writes:—"Evans's Extract is incomparably more valuable than any preparation of malt hitherto offered to the Public."

PROFESSOR TICHBORNE writes:—"Other preparations of this class which I have examined, on evaporation yielded only 36 grains of extractive to the fluid ounce, whilst yours contains 101.5 grains."

Dr. APJOHN writes:—"Of these constituents the most remarkable are those which include Nitrogen, the amount of which is unusually large—reaching, as it does, nearly 5 per cent. The Proteinic compounds in an ounce of it weigh 22.32 grains, and the analogous compounds in an ounce of beef steak 98.43 grains. Hence, weight for weight, the alimentary value of the Extract is very nearly one-quarter that of the beef-steak. It is therefore, nutritious to a high degree, and, being no doubt easy of assimilation, it must constitute a useful supplementary food in cases of debility and weak digestion."

EVANS'S SOLID EXTRACT OF MALT is also prepared with the following combinations:—

Malt with Quinine and Iron, Pepsine, Parrishes' Chemical Food, Hypophosphites, Cod Liver Oil.

EXTRACT OF MALT—"EVANS'S" possesses the power of producing a perfect emulsion with Cod Liver Oil, and in this state the taste of the Cod Liver Oil is more perfectly concealed than can be accomplished by any other known process.

### PREPARED ONLY BY JOHN EVANS,

Chemist to H.R.H. the Prince of Wales, H.R.H. the Duke of Connaught, and His Grace the Duke of Marlborough, K.G.,

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*Prepared from Pure and Methylated Spirit.*

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached) and in hermetically sealed flasks when required.

*N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.*

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LIQUOR RHEI DULC. | LIQUOR SENNÆ DULC. | SYR. FERRI PHOS. CO. (PARRISH).

Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations.

MANUFACTURERS OF THE CELEBRATED

## Blue Black Writing Ink and Copying Ink.

*SHIPPERS SUPPLIED ON LIBERAL TERMS.*

White Gutta Percha for Stopping Teeth, in 6d. and 1s. Boxes.

*Medicated Pessaries, Suppositories, and Bougies, prepared with either Cacao Butter or Gelatine.*

DUNCAN, FLOCKHART & Co.'s shape—the Minié bullet—approved by the Medical Faculty throughout the country.

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Beg to direct the attention of Buyers to their superior Manufactures of Concentrated Infusions, Concentrated Decoctions, Extracts, Expressed Juices, Liquors, Tinctures, and Wines. Also the following Specialities:—  
The GENUINE SYRUP of "EASTON'S" SUPERPHOSPHATE of IRON, QUININE, & STRYCHNINE. Pronounced by the highest Medical authority to possess tonic powers far exceeding all other preparations. Medical Men when ordering will oblige by writing "EASTON'S SYRUP (CURTIS)".

### LIQUOR SECALIS (CURTIS).

Prepared by the authority of the late President of the Obstetrical Society in 1859. Still maintains its character as a most reliable preparation of Ergot.

**PASMA**

OR HEALING POWDER, for Burns, Ulcers, Eruptions, Abrasions of Tender and Irritable Skins.

A preparation which has for years stood the test of Medical experience, as possessing healing Properties of the most marked and rapid character.

Sold at 1s. 1½d., 2s. 9d., 4s. 6d., 9s., and 18s., by all Chemists, Druggists, &c., throughout the World.

## J. F. MACFARLAN & CO.,

EDINBURGH AND LONDON,

Manufacturers of

## MORPHIA AND ITS SALTS,

*And all Products from Opium; also*

## PURE CHLOROFORM,

*Answering all the Tests of the British Pharmacopœia.*

Is extensively used in the Hospitals and by Private Practitioners, and is rapidly superseding the expensive Alcoholic Preparation.

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

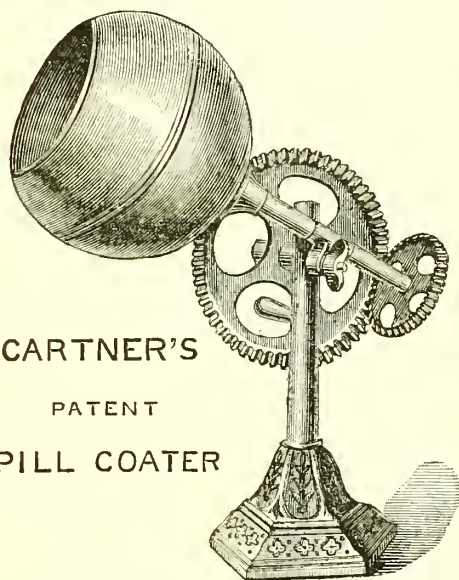
17 North Bridge, Edinburgh, and 5 Barge Yard, Bucklersbury, London.

*"An acknowledged Success, as certified to by numerous Testimonials."*

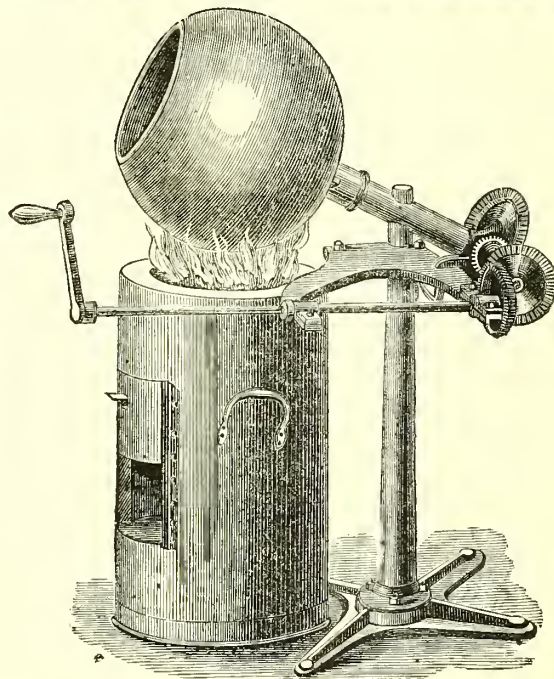
# CARTNER'S NEWLY IMPROVED PATENT PILL COATERS,

For the Counter or Warehouse, Hand or Steam Power, with Formulæ and Circular of Instructions for

## PEARL AND SUGAR COATING.



CARTNER'S  
PATENT  
PILL COATER



THESE MACHINES—an original invention, and lately patented—are a simple mechanical contrivance by which a perfectly regular rotary motion is given to the Pills. They have been in use some time in the manufacture of small and large quantities, and are guaranteed to Coat Pills equal to any ever offered to the public. They may be seen in operation, but there is no difficulty in using them. They are in various sizes for the counter or warehouse, and to coat from a quarter of a pound to a hundredweight. Those for the counter are somewhat an ornament. They are moderately priced, liked by all who have had them, and are a great acquisition to the Chemist, retail or wholesale; indeed, from the increasing use of "Coated Pills," are a necessity to every Chemist, and no better or cheaper article of the kind can be had. Directions accompany each Machine.

PRICES :	No. 1 to Coat up to	1 lb.	...	...	...	...	...	£1 5 0
	No. 3	"	3 lb.	...	...	...	...	£3 3 0
	No. 5	"	12 lb.	...	...	...	...	£5 5 0

CAUTION.—Any infringement of my Patent will be rigorously prosecuted. Purchasers are hereby cautioned.

### TESTIMONIALS.

I have tried your "PATENT PILL COATER" with a success much greater than I expected. My first attempt with Pil. Rhei. Co. 1 lb. quite astonished me. In about ten minutes they were finished almost equal to the best I have seen. With a little practice I see no reason why a novice should not be able to produce a perfectly Coated Pill at a cost of almost nothing.

[A sample of Pills coated by Mr. Bolton is available for inspection.]

JOSEPH H. BOLTON.

I am pleased to inform you that the "PATENT PILL COATER" I purchased of you a fortnight ago answers admirably, the Pills coated by it being equal to any I have ever had. With my first trial I was pleased, and, after using it the third time, I found it surpassed my greatest expectations. I have no doubt it will soon be found in the establishment of every chemist and druggist.

W. KING.

Your "PATENT PILL COATER" is such an acquisition that I would not be without it. Coating is such an improvement, that I am surprised chemists have been so long and are so slow in adopting it fully. Nothing could be more satisfactory than your invention.

H. HOOD.

I beg to recommend Mr. Cartner's "PATENT PILL COATER" as the most perfect article of the kind. I have tried numerous arrangements, but none to equal it in any way. It is a neat, convenient, and reasonably priced machine, and coats beautifully.

A. C. SIMPSON.

A WHOLESALE FIRM writes:—We have tried your "PATENT PILL COATER" with fair success, and beg you to send us a larger size; and, if this answers as well, may take a larger still.

*To be had of any of the Wholesale Sundries Houses.*



# Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

## IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,  
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

## FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall, London.	Gale & Co., London.	Newbery & Sons, London.
Allen, Hanbury & Co., "	Giles & Son, Clifton.	Oldham, G., & Co., Dublin.
Baiss Brothers, "	Goulding, Messrs. Cork.	Parsons & Richardson, Leicester.
Banks & Richards, Birmingham.	Gratton & Co., Belfast.	Peake, Allen & Co., Dublin.
Barron, Harvey & Co., London.	Grimwade, Ridley, London.	Raines & Co., Liverpool.
Bell, John, & Co., "	Grindley & Son, Chester.	Raines & Co., York.
Corbyn & Co., "	Hearon, Squire & Francis, London.	Raines, Blanshards & Co., Edinburgh.
Cox & Gould, "	Hodgkinson, Tonge & Stead, "	Sang & Barker, "
Curling & Co., "	Hopkins & Williams, "	Sanger, J., & Sons, London.
Curtis & Co., "	Hunt & Co., Exeter.	Sim, James, & Co., Aberdeen.
Davy, M'Murdo & Co., "	Hunt, A., & Co., "	Smeeton, W., Leeds.
Drew, Barron & Co., "	Johnson, J. H. & S., Liverpool.	Southall & Co., Birmingham.
Drew, B., & Alexander, "	Langton, W., & Co., London.	Sutton, W., & Co., London.
Dunn & Company, "	Lynch & Co., "	Tomlinson, Hayward & Co., Lincoln.
Edwards, W., "	Mander, Weaver, Wolverhampton.	Treacher, Hodgkinson & Co., "
Evans, Gadd & Co., Exeter.	Marsden & Sons, London.	Westrup, J. B., Kensington.
Evans, Lescher & Evans, London.	Maw & Son, "	Westwood & Hopkins, Lincoln.
Ferris & Co., Bristol.	Meggeson & Co., "	Woolley, James, Manchester.
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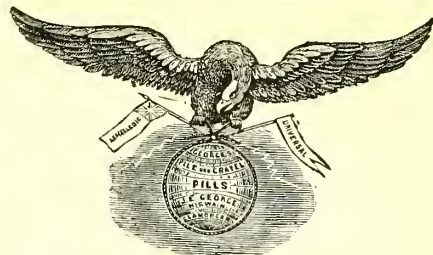
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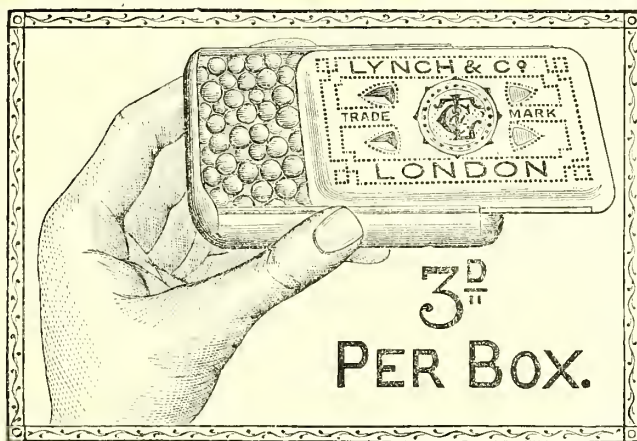
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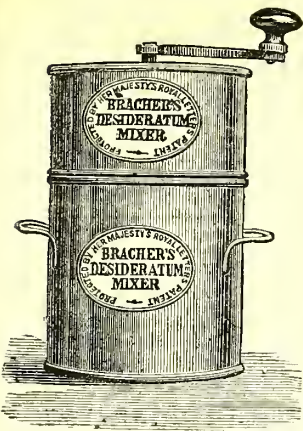
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Sauces, and Condiments.—E. LAZENBY & SON, Sole Proprietors of the Celebrated Receipts, and Manufacturers of the Pickles, Sauces, and Condiments so long and favourably distinguished by their name, beg to remind the Public that every article prepared by them is guaranteed as entirely unadulterated.—92 Wigmore Street, Cavendish Square (late 6 Edwards Street, Portman Square), and 18 Trinity Street, London, S.E.

**HARVEY'S SAUCE.—CAUTION**—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle prepared by E. LAZENBY & SON bears the label used so many years, signed "ELIZABETH LAZENBY."





## THE PESTLE AND MORTAR SUPERSEDED BY BRACHER'S "DESIDERATUM" MIXER,

For Mixing all descriptions of Powders, heavy or light.

### ADVANTAGES.

These Machines are specially adapted for mixing Powders of all descriptions, either in small or large quantities, and are the most rapid and efficient Mixers in use. They can be used either with or without the cover, are portable, require no fixing, and can be readily taken apart when necessary.

Powders which contain concrete lumps are easily reduced, and in no case need the ingredients pass through the machine more than once.

The larger sizes discharge the contents by withdrawing a slide in the bottom of the Mixer.

### CAPABILITIES.

For CHEMISTS and DRUGGISTS they prove invaluable for mixing all kinds of Powders, such as Cattle Drenches, Horse and Cow Spices, Baking and Egg Powders, Sherbet, Lemon Kali, &c., &c.

Price List and Particulars on application to

**P. H. BRACHER, 77 HIGH STREET, WINCANTON.**

## THE WANT OF THE DAY.

Registered.



1d., 3d., & 6d.

### MAKES STARCH LINEN AS NEW.

Starched Linen is made to Iron Easier, and is unequalled for Stiffness and Gloss. Sold by most starch sellers, at 1d., 3d., and 6d. each. Wholesale by the Proprietor,

**T. CRITCHLEY,**

**CHEMIST & WHOLESALE DRUGGIST  
BLACKBURN.**

CAUTION!—Makers and Sellers of imitations will be prosecuted.

## RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.	To Acct.
Plain Black Currant, old square ..	2 6	2 8
" " " rough oval ..	2 6	2 8
Black Currant and Ipecacuanha ..	2 6	2 8
Black Currant and Tannin.. ..	3 0	3 3
Black Currant Voice (warm astringent) ..	3 0	3 3
Black Currant Cough Lozenges ..	3 6	3 10

(Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size, From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

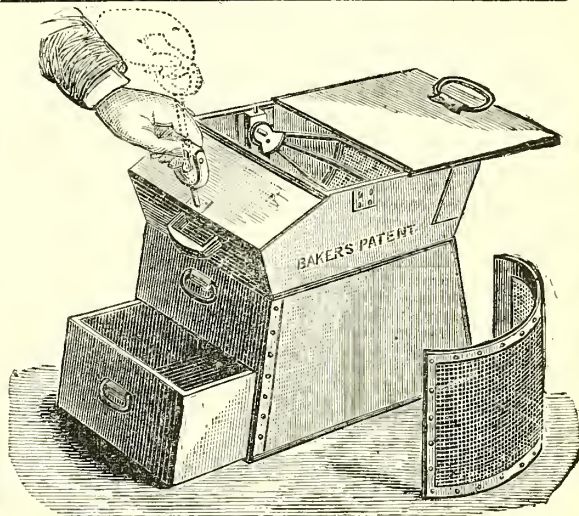
**RANDALL & SON, Southampton,**

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopoeia of the Hospital for Diseases of the Throat, London.



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Having recently made important improvements in our Mixing and Sifting Machines, adding several larger sizes to those formerly manufactured (samples of which were shown and practically tested at the Pharmaceutical Meeting, on February 5, 1879), we are now able to offer to Chemists, Druggists, and Manufacturers the most efficient means for sifting and mixing the largest or smallest quantities. Five sizes are manufactured, from "No. 1," holding 1 lb., to "No. 5," holding 1 cwt.; or special sizes made to order. The Machine (No. 3) represented is especially adapted for Sifting and Mixing large quantities of Sherbet, Seidlitz, Baking Powders, Horse and Cattle Mixtures, Ground Sugar, Violet Powder, Tooth Powder, etc. Wholesale Chemists, Manufacturers, and large Retail Dealers find this a most valuable machine. It holds 28 lbs., and two, or three cwt. can be done if required in a very short time. By the addition of our late improvements we are able to use finer sieves than by any other process, and therefore to produce a finer and more intimately mixed powder. Price List and particulars on application.

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WHITBREAD & CO.'S

## LONDON COOPER, STOUTS, AND ALES.

FOR PRICES AND FULL PARTICULARS APPLY TO

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\*\* Your attention is particularly called to the excellent quality of the LONDON STOUT and PALE ALE: very Mild, free from Acidity, and, being Season brewings, will keep for a considerable time.

OBSERVE.—All Corks branded "WHITBREAD & CO."; Labels—Chocolate Letters on Orange Ground.

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IN TINS OR IN BULK.

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MEDICAL SHOP FITTERS AND SHOW CASE MAKERS,  
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## 3d. WRIGHT'S 3d. GINGER BEER POWDER,

IN THREEPENNY PACKETS ONLY,  
*Sufficient for Three Gallons of Fine Sparkling  
GINGER BEER.*

Considered to be the Best Preparation of its kind known.

Is warranted free from anything injurious to health, will keep good for months in any climate, and, on comparison, will be found the cheapest and most saleable in the market.

Be particular to order "WRIGHT'S," and have no other.

Put up in 1-doz. Packets and 3-doz. Boxes (with attractive label for window), price 24s. per gross, less the usual discount.

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ESTABLISHED 1836.

## SEIDLITZ POWDERS.

WHOLESALE AND FOR EXPORTATION.

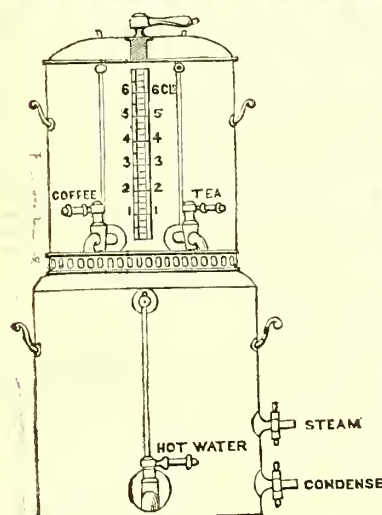
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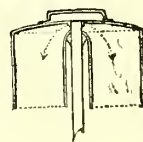
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Apparatus for making Extracts of Substances by Steam Pressure, for the use of Large Establishments, Steamers, Hotels, Coffee Taverns, Restaurants, and Cafés; also for Chemists to make Extracts or Infusions of Substances.



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On the same principle for Family use.

Great Economy, Excellent Aroma, Perfect Safety, and Cleanliness.

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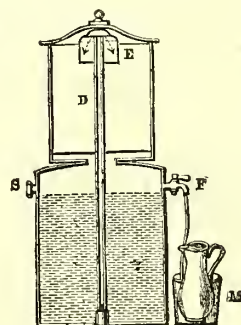
R. ETZENSBERGER, Patentee,

13 St. Andrew Street,

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HONOURABLE MENTION, INTERNATIONAL EXHIBITION, 1862.

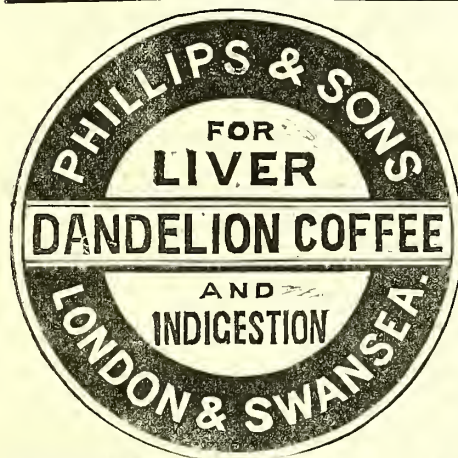
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WINE COOPERS, &c., imported and cut by**J. W. HART, 5 St. Mary Axe, LONDON.**

Orders accompanied by a remittance executed as under—

**RUSSIAN.**No. 1, 13/- per lb.; No. 2, 11/6 per lb.;  
No. 3, 9/6 per lb.**BRAZIL.**No. 1, 5/9 per lb.; No. 2, 4/9 per lb.;  
No. 3, 3/6 per lb.

PACKED IN SMALL BOXES, 1s. per lb. EXTRA.



ESTABLISHED 1760.

Contains three times the strength of ordinary Breakfast Beverages.

**ONCE TRIED ALWAYS USED.**The valuable properties of the Dandelion Root, recognised by eminent  
Physicians for many centuries, has now become an article of daily use.Sold by all Chemists throughout the Kingdom in Tins at 1s. 6d.,  
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Price Lists on application to the Manufacturers,

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AND ARTHUR STREET WEST, LONDON BRIDGE,JAS. WOOLLEY, SON & CO., Manchester.  
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IS the Best and the Cheapest, containing three times the strength of ordinary Coffee. The above is highly recommended by the Medical Faculty as an Agreeable, Palatable, and Medicinal BEVERAGE. See Reports from Dr. Hassall, M.D., Author of "Food and its Adulterations," &c.; also, Otto Hehner, F.C.S., Analyst. Sold in Tins, 6d., 1s., 1s. 9d., by most respectable Chemists. Wholesale Agents: Goodall, Backhouse & Co., Leeds; Wm. Mather, London; Jas. Woolley, Son & Co. and W. Mather, Manchester; H. Glover, Son & Co., Bradford; and all Wholesale Houses.

Caution—See you get BROOK'S, as inferior qualities are often substituted.

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**Natural Mineral Waters of "Apollinaris," "Hunyadi Janos," Vals,**  
Vichy, Carlsbad, Seltzer, Kissingen, Homburg, Pullna, Friedrichshall, &c., direct from the Springs.Also the **ARTIFICIAL MINERAL WATERS** prepared by Dr. STRUVE & CO., at the Royal German Spa, Brighton,  
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Appointed Agents for the celebrated "APOLLINARIS WATER."

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MAKER BY STEAM POWER OF MEDICATED AND HIGH-CLASS LOZENGES OF EVERY KIND.

*Boiled Sugars, of the Finest Quality, Packed for Home or Export.***Fragrant Bouquet Lozenges, 100 in an Ounce, have an immense sale.**

## SUGAR WORM CAKES,

Keep in any Climate, give great satisfaction, and have an increasing demand, especially in Africa and Australia. Put up in  
Tins, each containing 6 Dozen or 12 Dozen Cakes.

Price List, sent by post on application. Our Goods can be bought through any Wholesale House in London.

## RANDALL, SLOPER & CO., SODA WATER MANUFACTURERS, SOUTHAMPTON.

GOODS FORWARDED CARRIAGE PAID WITHIN 80 MILES OF  
SOUTHAMPTON, ON ORDERS OF 2 GROSS AND UPWARDS.

Soda, Seltzer, Potash & Aerated Waters  
supplied in Syphon Bottles.

Importers of Hunyadi János, Friedrichshall, Vichy,  
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supplied at Prices which will bear comparison with  
London Rates.

PRICE LISTS FORWARDED ON APPLICATION.

**"ABSOLUTELY PURE."**

SEE ANALYSES. Sent post free on application.

### ELLIS'S



REGISTERED.

## RUTHIN WATERS.

Soda, Potash,  
Seltzer, Lemon-  
ade, also Water  
without Alkali.  
For GOUT,  
Lithia Water, &  
Lithia &  
Potash Water.

CORKS BRANDED "R. ELLIS & SON, RUTHIN," and every  
label bears their Trade Mark. Sold everywhere, and wholesale of

**R. ELLIS & SON, RUTHIN, NORTH WALES.**

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

### FOREIGN MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6d. per Case less) 24/6 Case, 30 bot., 34/ Case, 60 1/2-bot  
APOLLINARIS (20 Hprs., 1/- per Hpr. less) 25/ Hpr., 50 " 39/ Hpr., 100 "

Hampers free, carriage paid; Empty Bottles, 6d. per dozen.

HUNYADI JANOS (10 Cases, 1/2-bts., 5/- less: 10 Cases, bts., 3/- each less)

SELTZER	...	...	...	30/- Case, 25 bts.	...	50/- Case, 50 1/2-bts.
PULLNA	...	...	...	11/6 Hpr., 25 "	...	15/6 Hpr., 50 "
VICHY	...	...	...	18/- Case, 20 "	...	30/- Case, 50 "
CARLSBAD	...	...	...	31/- " 50 "	...	27/- " 50 "
KISSENGEN	...	...	...	37/6 " 50 "	...	50 "
SCHWABACH	...	...	...	45/- " 50 "	...	50 "
HOMBURG	...	...	...	27/6 " 50 "	...	50 "
WILDUNGEN	...	...	...	37/6 " 50 "	...	50 "
CARLSBAD SALTS	...	...	...	40/- " 50 "	...	50 "

CARLSBAD SALTS, 1/2-Bots., 21/- per doz.; 1/2-Bots., 41/- per doz.; Bots., 80/- per doz.

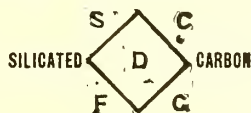
### FINE NORWEGIAN BLOCK ICE.

ORIGINAL BLOCKS, 2 to 3 cwt. each ... 2/6 per cwt  
1 cwt. to 2 cwt. ... 1d. per lb. 1 Under 1 cwt. ... 1d. per lb.  
Packing and Mats for Original Blocks free; 3d. each allowed for Mats if returned  
in good condition.

PRINTED DIRECTIONS for STORING ICE sent free on application.

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Importer of Ice & Mineral Waters,  
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### SILICATED CARBON FILTERS.



Prize Medals—PARIS, 1867. HAVRE, 1869.

ADOPTED, IN PREFERENCE TO ALL OTHERS, by  
the Admiralty, and used in the General Post Office, the London and  
Provincial Hospitals, and many Public Establishments in various parts of  
the World.

**SILICATED CARBON FILTER COMPANY,**

CHURCH ROAD, BATTERSEA, LONDON.

## GENUINE BRIGHTON SELTZER AND OTHER AERATED WATERS,

Prepared with scrupulous care as to chemical accuracy, and  
with the Natural Spring Water of Brighton, the Purest  
in the Kingdom.

**JOHN CHALLONER & SONS,**  
MINERAL WATER MANUFACTURERS,  
PROVIDENCE PLACE,  
BRIGHTON.



AGENTS WANTED.

### PURE AERATED WATERS.

MANUFACTURED BY

**T. & F. J. TAYLOR, NEWPORT PAGNELL.**

ESTABLISHED 1835.

Purity and Excellence of the Water certified by Analysis by  
PROFESSOR ATTFIELD, Ph.D., F.C.S.

**NEWPORT PAGNELL SODA WATER,** containing  
10 grains of Bicarbonate of Soda in each bottle.

**AERATED WATER,** without Alkali.

**POTASH WATER,** containing 10 grains or 20 grains of  
Bicarbonate of Potash in each bottle.

**LITHIA AND POTASH WATER.**

**SELTZER WATER,** prepared according to Analysis of the  
Natural Water.

**EFFERVESCING LEMONADE,** superior in flavour  
colourless, and warranted to retain its brilliancy.

Each Bottle is protected by a Label bearing the Signature of the Firm.

**BINGLEY'S**

**SODA WATER.**

**SELTZER.**

**POTASH.**

**LEMONADE.**

**LITHIA, &c.**



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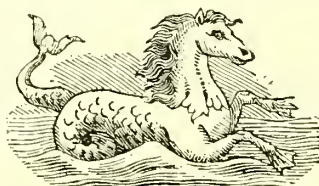
**JOHN BINGLEY, Pharmaceutical Chemist,**  
**NORTHAMPTON.**

A copy of Professor Attfield's Report will be forwarded by  
post on application.

## PARNELL'S CHALYBEATE SALINE.

AN AGREABLE COOLING FEBRIFUGE AND TONIC APERIENT  
EFFERVESCENT SALT, BEING A CHALYBEATE WATER IN A SOLID FORM.

Registered



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To be obtained in Bottles, 2s. 6d., from SANGER & CO., NEWBURY & SON,  
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Show Cards and Hand Bills sent free on application.

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**FRY'S COCOA EXTRACT,**

IN PACKETS AND TINS.

Pure Cocoa only, with the superfluous oil extracted.

This pure and delicious Cocoa, consisting exclusively of choice Cocoa Nibs from which the superfluous oil has been extracted, is strongly recommended to all who appreciate the full flavour and fine aroma of Cocoa.

"If properly prepared, there is no nicer or more wholesome preparation of Cocoa,"—*Food, Water, and Air*, Edited by Dr. HASSALL.

**J. S. FRY & SONS, BRISTOL & LONDON.**

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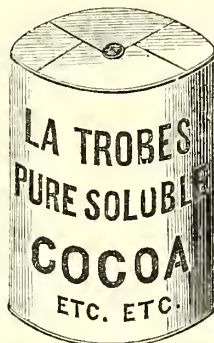
**FRY'S CARACAS COCOA.**—"A delicious preparation.**CHEMISTS' TEA AGENCY.****BROKEN-LEAF TEA, 1s. 8d. per lb.**

A Money-saving Tea, absolutely pure, in half-pound packets 10d. The small leaf from fine India and China Teas, stronger, richer, and cheaper than any whole-leaf tea. Wholesale to Dealers and Sellers and Agents. 40 lbs. sent free to any railway station in the kingdom.—**WALKER & DALRYMPLE.** Warehouses—154 and 155 Whitechapel Road, London. P.O.O. payable at Head Office. Bankers—The National Provincial Bank of England. N.B.—Samples posted free.

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PLANS AND ESTIMATES SUBMITTED FOR WORK IN ANY PART OF THE KINGDOM.

**9 CAMDEN STREET LIVERPOOL.****LA TROBE'S  
PURE SOLUBLE COCOA.**

Supplied to Chemists only, all other Trades refused.

H. L. T.'s production stands entirely upon its own merits, as the Purest Cocoa manufactured.

That the Trade may have an opportunity of testing, H. L. T. sends samples for gratuitous distribution amongst the medical profession upon receiving from Agents a list of same.

Retailed in Canisters,

**La Trobe's****1s. and 2s.****Pure Soluble Cocoa.**

Also Manufacturer of

La Trobe's Highbury Bouquet,  
La Trobe's Constitution Powder,  
La Trobe's Cough Lozenges,  
La Trobe's Plate Powder.

Price List, with Terms, on application to

**H. LA TROBE,**  
**COTHAM, BRISTOL.**

**SPECIAL NOTICE TO DRUGGISTS.**

Increase your Business by Selling the  
**ORIENTAL COMPANY'S TEA.**

IN SUBMITTING THEIR TEAS to Agents, the above-named Company desire to offer the following remarks:—

THE PROPRIETORS have been long connected with the EAST, as IMPORT and EXPORT MERCHANTS, and, with the means at their command, are enabled to avail themselves of their experience in purchasing at the proper season, from the best markets, and direct from the TEA PLANTERS, thereby securing the choicest pickings, and saving all intermediate profits between producer and consumer.

THE TEAS being thus bought are carefully cut, sifted, and mixed by the most improved machinery, under the superintendence of a PRACTICAL TEAMAN, whose whole study has been devoted to the ART OF BLENDING TEAS to suit the Tastes of the general public; and it may be added that it is greatly due to judicious blending that the COMPANY'S TEAS have acquired the position they now hold.

INDIAN TEAS have within the last few years obtained such favour with connoisseurs for Strength, Aroma, and Delicacy of Flavour, that THE ORIENTAL COMPANY have introduced, as a SPECIALTY, a blend of these fine Teas, the sale of which has attained such proportions as to warrant the assertion that it produces the most delicious beverage ever offered to the public.

THE TEAS are packed in specially-prepared wrappers, with TINFOIL LINING, in  $\frac{1}{4}$ -lb.,  $\frac{1}{2}$ -lb., and 1-lb. Packets; 5-lb., 10-lb., and 20-lb. Tins; 20-lb. Boxes, Half-chests, and Chests; and retailed as under.

Fine China Blended Tea, Magenta Label				...	...	...	...	Retail at	2/0 per lb.
Finest	"	"	Blue	"	...	...	...	"	3/0 "
Fine Indian	"	"	Green	"	...	...	...	"	2/6 "
Finest	"	"	Yellow	"	...	...	...	"	4/0 "

For Terms of Agency and other particulars apply at the Office—

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# TO THE MINERAL WATER TRADE.

**J. B. LAMBE & Co.** desire to draw the attention of **LICENSEES** of **PATENT STOPPERED BOTTLES** to their



## MOTTO-DISCS

**OR SEALS,**

SHORT RECKONING  
MAKES  
LONG FRIENDS.

**OF WHICH THEY ARE THE ORIGINAL MAKERS.**

The Article is made of good stout Cardboard, while the Mottoes are numerous and varied, and packed carefully in Boxes of 3,000 each.

*These Seal Mottoes are a great convenience, strengthening the cap label, and keeping the lips of the bottle free from dirt.*

A Large STOCK is kept, and Orders can be supplied immediately on receipt.

PRICE LIST.	
5,000 . .	9d. per 1,000.
25,000 . .	8d. "
100,000 . .	6d. "

*Special Quotations for Larger Quantities. Samples will be sent on Application.*

MANUFACTURERS OF EVERY DESCRIPTION OF LABELS, SHOW CARDS, &c., SUITABLE FOR THE TRADE.

## J. B. LAMBE & CO.,

CHROMO-LITHOGRAPHERS & GENERAL PRINTERS,

199 UPPER THAMES STREET, LONDON, E.C.

*Established 1857.]*

## BISHOP'S GRANULAR EFFERVESCENT CITRATE OF MAGNESIA



This perfectly white and delicately clean Preparation,

Prepared with Salts obtained from Pure Fruit Juices of Lemons and Grapes,

Is the most delicious of all the effervescent drinks which have been offered to the public since Mr. ALFRED BISHOP first invented this combination in 1857. It may be taken with perfect safety all the year round, and, besides being a most refreshing beverage, it cools the blood and acts as a mild aperient. It is now prescribed by thousands of physicians as the pleasantest and most efficient aid to **PERFECT HEALTH**; and an imitation of the product has been introduced into the British Pharmacopoeia by the General Medical Council.

It is the best and purest draught which can be taken as a morning restorative, while for delicate persons and young children it is invaluable as an alternative. It ensures a regular action of the skin and of all the organs of the body, and thus invigorates the system instead of exhausting it, as is the case with more violent medicines.

The best chymists in Great Britain and the Colonies keep no other "Granular Effervescent Citrate of Magnesia" than "Bishop's." The reason for this universal preference is that, since its introduction in 1857, it has been found that none of the imitations of this preparation, originally introduced by Mr. Bishop, have been able to compare with it in reliability as a medicine, or in purity and freshness of flavour as a cooling drink. Full directions on each bottle.

DR. REDWOOD, Professor of Chymistry at the Pharmaceutical Society of Great Britain, thus writes:—"I have examined a great many samples of Mr. Bishop's granulated preparations, obtained at various times and from different sources, and have found them to be very uniform in character, fully charged with Carbonic Acid, and obviously made with great care and accuracy."

An old Correspondent writes:—"I have never found your Citrate of Magnesia injurious to health; on the contrary, I should be sorry to be without it. I have used it now for nearly twenty years, and take a teaspoonful every morning in a glass of cold water. I require no other medicine."

Sold by all Chymists, in Bottles, at 1s. and 2s. 6d.

*Established 1857.]*

## BISHOP'S [Established 1857.] GRANULAR EFFERVESCENT CITRATE OF POTASH.

Contains eight grains of this admirable anti-febrile salt in each drachm, keeps well, and yields a delicious effervescent draught. It is more efficient, more economical, and more convenient than the ordinary alkaline waters, and much superior to the various mixed powders, which consist mainly of Tartrate of Soda.

A customer writes:—"It is the nicest effervescent preparation I have ever tasted, and is infinitely pleasanter than the hottled waters."

DR. G. O. DREWRY, in his "Common Sense Management of the Stomach," recommends for Indigestion, Constipation, &c., the "GRANULAR EFFERVESCENT CITRATE OF POTASH" as a very agreeable, mild, and cooling laxative, when taken in doses of one dessert spoonful in half-a-pint of water before breakfast.

Observe that the Name, Trade Mark, and Address of the Maker is on each Bottle.

**ALFRED BISHOP, Chymical Factory, Speck's Fields, Mile End New Town, LONDON.**

**BISHOP'S EFFERVESCENT PORTABLE MINERAL WATER SALTS**, of Carlshad, Seltzer, Pullna, Vichy, Lithia, &c. Far more convenient, and much more economical, than the bottled waters. With directions for use.

Sold by all Chymists, in Bottles, at 1s., 1s. 6d., and 2s. 6d.



# LAMPLOUGH'S EFFERVESCENT PYRETIC SALINE.



**HAVE IT IN YOUR HOUSES AND TRAVELS, USING NO OTHER SALINE;** it gives instant relief in Headaches, Sea or Bilious Sickness, and quickly cures the worst form of Eruptive or Skin Complaints. The various diseases arising from Constipation, the Liver or Blood Impurities, Inoculation, the results of breathing air infected with Fevers, Measles, or Smallpox, are frequently prevented and certainly cured by its use.

The sale of these Saline Salts having greatly increased during the past few years, I beg most cordially to thank those who sell and recommend the same, and also to inform intending dealers that they will find Messrs. BARCLAY, EDWARDS, MAW, NEWBERRY, SANGER, SUTTON, and the Wholesale Houses generally, ready to supply their wants. This Advertisement is found needful in consequence of the trouble, cost, and inconvenience in the keeping and collection of numerous small accounts. *Note.*—The Name, Trade Mark, Labels, Wrappers, &c., are all Registered and Entered at Stationers' Hall.

113 HOLBORN HILL, LONDON, E.C.

**SPECIAL NOTICE.**—Medical Gentlemen having fever cases, and desirous of trying the Saline, can have a single bottle at wholesale prices by sending their cards.



## MILLS & CO. BOURNE WATER, THE PUREST IN ENGLAND.

MILLS & CO., Manufacturers of the  
Original BOURNE ARTESIAN AERATED WATERS.

BOURNE SODA WATER, unequalled for  
its natural Alkalinity.

BOURNE POTASH WATER—a Special  
Remedy for Rheumatism and Gout.

BOURNE LEMONADE—Superior Quality,  
made from the Fruit.

BOURNE LITHIA WATER—Specific for  
the Gout. Guaranteed to contain a fixed quantity of Lithia.

BOURNE SELTZER WATER—The natural  
Alkalinity of the Bourne Artesian Well Water, combined  
with Artificial Salts, produces one of the best articles made.  
This Seltzer Water is well adapted for invalids for its purity.  
When taken at dinner-time, it promotes digestion.  
Early in the morning, slightly aperient.

**R. M. MILLS & CO., MANUFACTURERS, BOURNE.**  
Messrs. Padgett & Son, Wine Merchants, 27 Motcombe  
Street, and Messrs. Hardy & Co., Chemists, 42 Fenchurch  
Street, corner of Mincing Lane, Wholesale Agents,  
London.

And their appointed Agents throughout the Kingdom.

## J. H. CUFF'S MINERAL WATERS, Atkinson St., Deansgate, MANCHESTER.

SODA WATER  
SELTZER WATER  
POTASS WATER  
15 grs.

LEMONADE  
GINGER ALE  
LITHIA WATER  
5 grs.

LITHIA WATER WITH POTASS.

QUININE TONIC WATER, &c., &c.

SENT IN BIN CASES. NO PACKING REQUIRED.

Carriage paid on 12 Doz. assorted, or 6 Doz. of one kind.

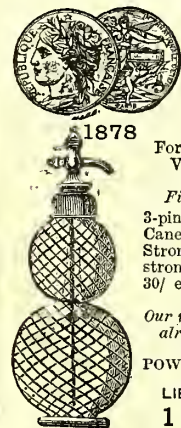
Priced Lists free on application.

DISCOUNT ACCORDING TO QUANTITY.

SPECIAL TERMS FOR EXPORT ORDERS.

Attention is directed to Cuff's Soda, Seltzer, and Potass  
Waters, and Ginger Ale (the latter a speciality), all of which  
command a very extensive and ready sale.

Cuff's Waters are prepared expressly for a High-class  
Family Trade.



## EUGENE GERAUT & CO.

### NEW PATENT LEVER SELTZOGENES.

For the immediate production of Eau de  
Vichy, Soda Water, Sparkling Lemonade,  
Aerated Waters.

First introduced by EUGENE GERAUT & Co. in 1853.

3-pint, wire, 13/; 5-pint, wire, 18/; 8-pint, wire, 30/  
Cane covered, 3-pint, 6d.; 5-pint, 1/; 8-pint, 2/ each extra.  
Strongly silver-plated top, 5/ each extra. 3-pint size,  
strongly silver-plated, richly decorated porcelain stands,  
30/ each; 5-pint size, ditto, 38/ each; 8-pint size,  
ditto, 48/ each.

Our well-known Seltzogenes are improved yearly, and have  
already stood a public test of upwards of Twenty Years,  
and are acknowledged as THE VERY BEST.

POWDERS FOR THE ABOVE.—Subject.—3-pint, per dozen  
boxes, 22/; 5-pint, ditto, 36/; 8-pint, ditto, 65/.

LIBERAL DISCOUNT FOR LARGE QUANTITIES.

1 & 2 CORPORATION BUILDINGS, FARRINGTON ROAD, LONDON, E.C.



### SYPHONS.

#### IMPORTANT NOTICE.

Great Reduction in Price.

1873. Clear or coloured glass, pure ENGLISH BLOCK  
TIN TOPS, with piston or cap.

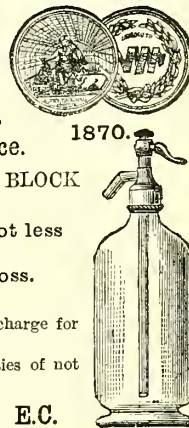
22/6 per dozen, for quantities of not less  
than one gross.

25/ per dozen, for less than one gross.

Packing in Cask, 5/ per gross.

The Name marked on the metals free of charge for  
quantities of not less than one gross.

The Name engraved on the glass for quantities of not  
less than one thousand, 2d. each extra.



## INDEX TO ADVERTISEMENTS,

See pages 82, 12.



# HOT WEATHER!

## WHAT TO DRINK AND WHAT TO AVOID!

A MORE OR LESS SPECIFIC ANSWER TO WHICH QUESTION will certainly throughout the coming summer not unfrequently be desired of Chemists by their customers, especially in sea-side towns, where, to the visitors thereto, it commonly happens that the change of air and water, supplemented very frequently by undue exposure to solar heat, renders the possession of a perfectly wholesome and corrective refrigerant remedy a decided desideratum, and for the proper fulfilment of which requirement we venture to think it will be readily allowed that the use of the ordinary effervescent compounds are utterly unfitted and unscientific, possessing, as they uniformly do, the double disqualification of alkalinity and more or less of purgative property.

*"Acting as a purgative by occasioning a considerable discharge of serous fluid into the intestines, which effect when often repeated occasions debility of the digestive organs, and consequent emaciation."*—DR. PARIS.

Before, therefore, recommending for more than very occasional use effervescent preparations of the class uniformly composed of Tartrate of Soda with varying proportions of Sulphate of Magnesia, &c., the fact should never be lost sight of that they exert also a powerfully alkaline effect, which, when for some time continued, most certainly impairs nutrition by causing a serious loss of coagulable power in the blood—a depravation, it will be unnecessary to remark, especially typical of scurvy and other vitiated conditions.

It will, therefore, we think, be sufficiently obvious that the novel combination of the salutary principle of lime fruit—to the entire exclusion of Tartaric Acid—with effervescent properties unalloyed by the usually excessive alkalinity, for the first time supplied in

## WENHAM'S LIME JUICE SALINE OR HEALTH SALT,

is such as to render it a general domestic remedy of prime importance, whether it be had recourse to for its gratefully refrigerant and prophylactic properties, or for the more specifically alterative and antiputrescent action of its constituent Lime Juice, which, being furthermore supplemented by the valuable therapeutic agency of Nascent Oxygen derivable from its potassic component, leaves nothing to be desired to render it physiologically correct as a remedy in the numerous cases where, from imperfect oxygenation consequent upon excesses in diet or unsanitary conditions of life, the blood has become charged with fermentible carbonaceous matters—a condition it is needless to observe always provocative of functional derangements, as well also as it offers a favouring nidus for the reception and development of zymotic diseases.

### NOTICE TO THE TRADE.

By the introduction of WENHAM'S LIME JUICE SALINE to the notice of their Customers (which from its unique and attractive appearance it itself effects when displayed upon the counter), Chemists have the opportunity of considerably augmenting their returns by the sale of this entirely novel and elegant preparation, which—to enumerate some of its advantages—

Possesses in a complete and portable form the valuable anti-scorbutic, alterative, and general healthful properties of Lime Juice and Potash;

Rendering it in the highest degree a remedy at once palatable, refreshing, and health-sustaining;

Which, with a total absence of qualities whereby its range of usefulness can be limited, as in the case of purgative and obviously weakening Tartrates of Soda, &c.,

Supply important desiderata that, considered in connection with the unapproached intrinsic value of the article,

Amplify warrants the assumption of its obtaining the decided approval of the Public wherever introduced.

"35 Baker St., W., July 9th, 1878.

"DEAR SIRs,—I think your Effervescent Lime Juice Saline is well made, and should become very popular as a contribution to 'Elegant Pharmacy,' as well as a cooling beverage during the heat of summer. You will be pleased to hear that we have just sent a consignment of it to H.M.S. *Monarch*, Cyprus.—Yours faithfully,

"A. W. POSTANS, F.C.S."

"Troop Steamer, *Dublin Castle*, Cape Town, 15th March, 1879.

"DEAR SIRs,—In the hurry of embarkation, on 19th of last month, at Gravesend, I had not time to thank you for the box of Effervescent Lime Juice Saline you so kindly placed at my disposal, for use of officers and men embarked for the Cape. I now do so, and can testify to its having proved a boon to those who felt in any way indisposed, especially to those suffering from sea-sickness. The demand for it was so great that your liberal supply soon vanished. I can safely say, from personal experience during voyage, that it is not only most refreshing, but also tends to allay sea-sickness, and I am sure would be also useful in febrile diseases.

"Accept my thanks, please.

"(Signed) EDW. J. BOULTON, Surgeon Major."

In Bottles, 2s. 6d. and 4s. 6d. each; Cases for Export, 21s. Sole Manufacturers (Registered),

## WHEELER & CO., LONDON, & SOUTHEND-ON-SEA.

AGENTS.—Calcutta, Messrs. Bathgate & Co.; Bombay, Messrs. Treacher & Co.; Simla and Lahore, Messrs. E. Plomer & Co.; Allahabad, Mr. J. L. Lyell; Melbourne and Wellington, Messrs. Felton, Grimwade & Co.; Sydney and Brisbane, Messrs. Elliott Brothers; Dunedin, Auckland, and Christchurch, Messrs. Kempthorne, Prosser & Co.; Port Elizabeth, Messrs. N. Adler & Co.

### IMPORTANT TO SHIPPERS.

LIME JUICE SALINE has most successfully been introduced with a view to obviate the difficulty of obtaining really reliable Lime Juice under any but very exceptional circumstances. In the condensed form, now for the first time presented to the public, the difficulties attendant upon its use and transport in the liquid condition are wholly obviated; and by a combination of the most *recherché* qualities, together with an entire freedom from the lowering effects of ordinary saline compounds, a remedy is provided which requires but a single trial to offer the most convincing proofs of its immense usefulness.

"21 Eccleston Square, S.W.

"September 12th, 1878.

"Gentlemen,—Should Lime Juice be proved to be an efficacious remedy for Scurvy, the palatability and 'readiness for use' of your preparation will render it invaluable in all future Arctic Expeditions.

"I am, Gentlemen, very truly yours,

"A. H. MARKHAM, Captain R.N."

Captain A. H. MARKHAM was Commander of H.M.S. *Discovery* in the recent Arctic Expedition.

"Aylesbury Pharmacy, 11th Nov., 1878.

"Messrs. WHEELER & Co., I sold out of your L. J. Saline on Monday last, and have got in a fresh supply, which makes my third case. I lately recommended it to a gentleman, who was so especially pleased with it that, upon the occasion of his purchasing a second bottle, he assured me that he should spare no pains to make known its virtues amongst his numerous friends. From the trial, therefore, which I myself have made, and the testimony I have received from my customers, I can confidently affirm it to be the best preparation before the public or the trade.

I am, Gentlemen, yours faithfully, JOHN TURNER."

"Royal Hotel, Durban, Natal, 20th March, 1879.

"GENTLEMEN,—I intended posting you this when at Cape Town, but we were so suddenly ordered on here that I had not the opportunity of doing so until we reached Durban.

"I am greatly indebted to you for many a refreshing draught during the voyage; indeed the Lime Juice Saline was so popular with all ranks and classes on board that a considerable sum could have been realised by its sale on board the *Dublin Castle*, and I only regret that it is not to be procured here, as I should be very glad to possess a supply on my departure to-morrow to join Colonel Wood's column.

"(Signed) WM. SMITH COX, H.M. Ordnance."



**CHEMISTS' SPECIALITIES.****SPARKLING, NON-ALCOHOLIC, PHOSPHATED IRON BEVERAGE.****ZOEDONE****BRAIN AND NERVE TONIC AND NUTRIENT TONIC BEVERAGE.****RECOMMENDED BY THE FACULTY.**

**ZOEDONE** is not a medicine, but a beverage for daily use. It possesses properties combined in no other beverage, having the essential constituents of the **BLOOD, BRAIN, AND NERVE TISSUE**. It is agreeable to the palate, pleasant to the eye, and innocent in its action. It is also non-alcoholic. As a dinner beverage it is unsurpassed as an agreeable sparkling drink; especially adapted for the overworked, worried, or anxious; for convalescents it is invaluable.

Every Chemist that has introduced **ZOEDONE** has found a large and regularly increasing sale for it. It is put up in Champagne Bottles, and there is no trouble with empties, as the bottles are included in the price. Customers supplied with Pamphlets for distribution; also a special Circular for medical men stating the formulæ. Usually orders should be anticipated by one week.

From Mr. **WILLIAM LEE**, Dispensing Chemist, Castle Northwich.

To Messrs. R. EVANS & Co.

Since a medical gentleman recommended me to keep **ZOEDONE** in stock, it has had the most rapid sale of anything I ever sold. I feel sure it only requires to be known for its sale to become yet more extensive.—  
Yours truly,  
**WILLIAM LEE**.

From **NORMAN KERR, M.D., F.L.S.**

42 Grove Road, Regent's Park, London, 15th May, 1879.

**ZOEDONE** is a most agreeable, refreshing, and elegant tonic. This pleasant sparkling beverage, whilst most acceptable at the social board, is an invaluable adjunct to medicine.  
**NORMAN KERR, M.D.**

From **T. EYTON-JONES, M.D., F.R.C.S.E.**

Grosvenor Lodge, Wrexham, May 6th, 1879.

**DAVID JOHNSON, Esq.**

My dear Sir,—You are doubtless aware that I have very recently been confined to my bed with a very sharp attack of Bronchitis and Pleurisy—producing in a fortnight such rapid waste that I could hardly walk across my bedroom without support—the only assistance I have received towards my restoration to health, besides ordinary nutritious food, has been your invaluable and excellent preparation **ZOEDONE**. Without being a stimulant, it possesses in the Phosphorus and Iron in an aerated condition the most valuable ingredients required by invalids during convalescence.—Believe me, very sincerely yours,  
**T. EYTON-JONES, M.D.**

From the Rev. **D. HOWELL, B.D.**, Vicar of Wrexham.  
Vicarage, Wrexham, North Wales, March 24th, 1879.

Messrs. R. EVANS & Co.,—Your **ZOEDONE** is incomparably the best non-alcoholic beverage I have ever tasted. It is used daily in my family. It is refreshing, stimulating, and strengthening.  
**D. HOWELL**.

From the **TEMPERANCE RECORD**, June 5th, 1879.  
The Beverages at the Medical Dinner.

BY A MEDICAL CONNOISSEUR.

Everyone was struck with the variety and attractiveness of the liquids at the dinner at the "Langham." By universal consent the palm was awarded to **ZOEDONE**, a sparkling, delicious, exhilarating drink, containing phosphates and iron, and an excellent brain and nerve tonic. The pateuttee is Mr. David Johnson, F.C.S., and the manufacturers are Evans & Co., Wrexham.

From **WILLIAM CARTER, M.B., B.Sc.L.L.B.Lond., M.R.C.S.Lond.**, Physician to the Royal Hospital, Liverpool, Lecturer on Materia Medica, Liverpool Royal Infirmary School of Medicine.

June 9th, 1879.

I have great pleasure in expressing the high opinion which I have formed of the value of **ZOEDONE** as a tonic beverage and medicine. It seems to me to meet a decided want, as by its means we are enabled to prescribe the phosphates of iron, lime, &c., not merely in a very easily assimilable, but as well in a most palatable and refreshing form. I have prescribed it largely, and from my observation of its effects believe it will be of great use to the profession.

**WILLIAM CARTER, M.B., B.Sc.L.L.B.Lond., M.R.C.S.Lond.**

**Report on the ZOEDONE of Messrs. Richard Evans & Co., of Wrexham.**

The Analytical Sanitary Institution, 54 Holborn Viaduct, London, E.C., Sept. 21, 1878.

I have carefully examined the new Aerated Mineral Water manufactured by Messrs. R. Evans & Co., and to which they have given the name of "**ZOEDONE**." I find the statements made respecting its composition to be fully borne out by the analysis. The "**ZOEDONE**" is a bright, sparkling, and very pleasant beverage, quite free from medicinal taste; indeed, it forms a most agreeable and elegant vehicle for the administration of the Phosphates of Lime and Iron which it contains, and which are in a complete state of solution.

**ARTHUR HILL HASSALL, M.D.**, London,

Author of "Food, its Adulterations, and the Methods of their Detection."

**ZOEDONE** is supplied direct by us and our Agents on the following Terms, Cash Prices, including bottles and package, free on Rails at Wrexham.—6/6 per doz. in half Champagne Bottles (usually sent out in 6 doz. cases). 12/- per doz. in large Champagne Bottles (usually sent out in 3 doz. cases). 6d. per doz. extra for export, packed in casks. Trade Terms on application.

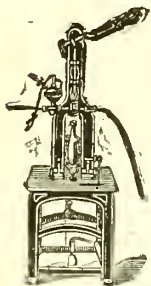
**PATENTEE—DAVID JOHNSON, F.C.S.**

**Manufacturers, RICHARD EVANS & CO., Wrexham, North Wales.**



## GOLD MEDAL SODA WATER MACHINERY.

Awarded Grand Medal of Progress  
at Vienna, 1873.



Bottling Machine.

Seven First-class Medals awarded at various International Exhibitions over and above all other Machinery of the kind since 1862.

Soda Water made at a minimum cost by using these Machines.

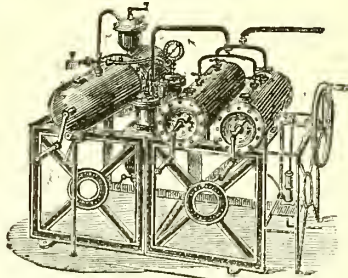
No Steam Power wanted.

Entire Saving of Coals.

Half the usual Labour.

Saves Breakage of Bottles.

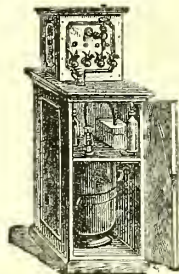
Simple in Construction.



TRADE MARK.  
Generator and Bottling Cylinders.

Agents for Lamont's Patent Bottles, and Vaass & Liktman's Ice Making Machines.

Sole Agents for Galloway's "Excelsior" Soda Water Machine, with Steam Engine combined, and "Universal" Double Pump Machine. Guaranteed to Make 40,000 Bottles per Day; also all other Specialties made by this celebrated House.



Cabinet Machine.

### Cost of Machines Saved in one Season in Broken Bottles alone.

The undersigned are the only Manufacturers in Europe of the Improved Machines for Making, Bottling, and Drawing on Draught Aerated or Mineral Waters.

These Machines are lined with pure tin, the pipes are of pure tin, and every care is taken to make them as perfect as possible. For convenience, and saving of time and labour, these Machines are not excelled; therefore, for Makers of Soda Water, Lemonade, Ginger Ale, Seltzer, Potass, Vichy, and other Waters, they are invaluable.

Before purchasing send for Catalogue of 104 pages, post free, giving illustrations and prices.

NOTICE.—The Trade and all others are notified that no one has authority from us to manufacture any of our specialties; and anyone pretending to have such, and manufacturing the same, will be dealt with according to law. All are therefore safe only by dealing with the original Inventors and Manufacturers.

**DOWS, CLARK & Co., 46 & 47 Frith Street, Soho, LONDON.**

In our New Catalogue, just issued, will be found illustrations and descriptions of the various Machines for Making Aerated Waters and Bottling the same, Marble Machines for the Counter, of various designs and prices, Copper Cylinders and Coolers, Syphons and Fillers, Ice Safes, Silver-plated Counter Draught Tubes, Tumblers, and Silver-plated Holders, Measuring Taps, Ice Cream Freezers, Fruit Juices, Extracts for flavouring, and Fruit Syrups, for Export or otherwise. Patent Clasps for Bottles, Pressure Gauges, the Cabinet Machine for Clubs, Private Families, Messes, &c. Mineral Waters for Export. Bottles, Corks, Gum Ale Extract, Gum Extract, for producing foam, Cider Extract, &c., &c.

Lime Juice Cordial and Syrup of the very finest quality.

## G. COLE,

MANUFACTURER OF BOXES FOR CODD'S PATENT BOTTLES,  
AND MAKER OF

**ALL KINDS OF PACKING CASES  
FOR THE SODA WATER TRADE.**

N.B.—Orders executed with dispatch, and on the most reasonable terms.

STEAM WORKS:—

**48 and 50 TRINITY STREET, ROTHERHITHE, S.E.**

**SODA WATER AND LEMONADE MACHINE,  
TO MAKE ALL THE AERATED DRINKS.**

WITH RECIPES AND INSTRUCTIONS FOR WORKING.

A Machine, with Dial and Water Gauges, to make 300 dozen per day	...	£30	0	0
Ditto ditto ditto 1,000 ditto	....	£40	0	0
Engine and Boiler to drive same	... ..	£30	0	0

PARTICULARS OF

**N. G. WILCOCKS, Engineer, BATH.**

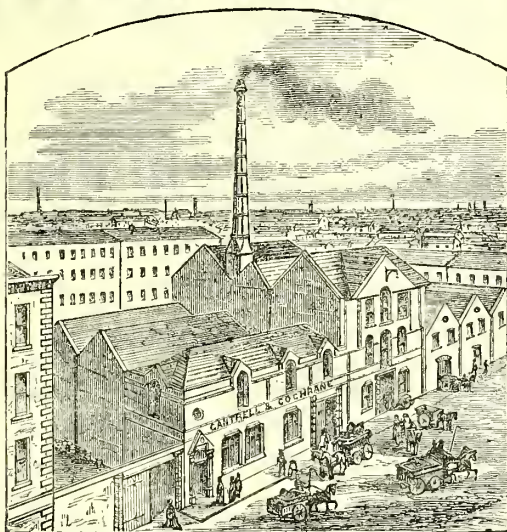


# CANTRELL & COCHRANE,

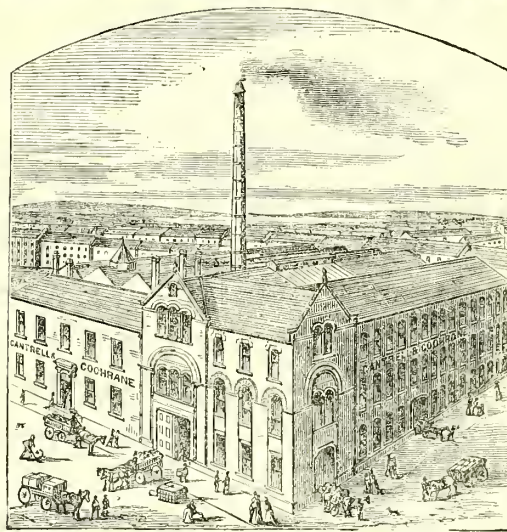
ORIGINAL MAKERS OF THE JUSTLY CELEBRATED

## AROMATIC GINGER ALE.

ALL OUR DRINKS ARE NON-ALCOHOLIC.



WORKS, NASSAU PLACE, DUBLIN.



WORKS, CROMAC BUILDING, BELFAST.

ALL OUR DRINKS ARE NON-ALCOHOLIC.

MAKERS BY APPOINTMENT TO HIS EXCELLENCY THE LORD LIEUTENANT OF IRELAND.

Abyssinian Expedition.  
Inman Steam Ship Company.  
Oceanic Steam Ship Company.

CONTRACTORS FOR THE  
Anchor Steam Ship Company.  
Montreal Steam Ship Company.  
Pacific Steam Ship Company.

Cunard Steam Ship Company.  
National Steam Ship Company.  
Kingston and Holyhead Royal Mail.

The following List of their preparations is worthy of the attention of Chemists:—

### AROMATIC GINGER ALE.

Kali, or Potass Water.  
Soda Water.  
Seltzer Water.  
Lithia Water.

Lemonade.  
Summer Beverage.  
Lime Juice.  
Lime Juice Syrup.

Aerated Sarsaparilla.  
„ Dandelion.  
„ Quinine.  
Carrara Water.

### “MONTSERRAT” LIME JUICE CHAMPAGNE (Aerated).

The Machinery and Appliances used in the Laboratory and Factory for their production are of the most approved construction; the Water and all the Materials used are of the highest degree of purity; and as the greatest care is exercised in their manufacture, they may be relied on as absolutely free from organic and mineral contamination.

Testimonials from the MEDICAL PROFESSION, from accomplished ANALYSTS, and from PUBLIC MEN eminent in Literature, Science, and Art, at once give an assurance of the excellence of these Beverages, and show the universal esteem in which they are held.

INTERNATIONAL RECOGNITION has been given to their merits at various Exhibitions all over the World. Eight Gold and Prize Medals have been awarded.

All Goods ordered for Export are specially prepared and packed for their respective destinations, and are guaranteed to retain their qualities unimpaired. Terms and Prices may be obtained on application to—

### CANTRELL & COCHRANE,

Nassau Place,  
**DUBLIN.**

Cromac Building,  
**BELFAST.**

14 & 16 Union Street,  
**EDINBURGH.**

or, 53 Surrey Street,  
**GLASGOW.**

PURVEYORS TO HER MAJESTY'S IMPERIAL HOUSES OF PARLIAMENT.

---

**STAND No. 442,**  
Royal Agricultural Society's Meeting, 1879.

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**HAYWARD TYLER & CO.**  
Will Exhibit in Full and Complete Action their  
**SODA WATER MACHINERY,**  
For which they were Awarded at Paris  
**THE GOLD MEDAL.**

---

SHOW ROOMS:  
*84 and 85 Whitecross Street, London.*

---

**MONDOLLOT'S PATENT**  
**Soda Water Machinery,**  
Continuous System without Gazometer.  
**GOLD MEDAL AT THE PARIS EXHIBITION,**  
**1878.**

Full particulars on application to the Sole Agents,  
**MESSRS. L. FRIQUET & CO.,**  
**13 LITTLE JAMES STREET, BEDFORD ROW,**  
**LONDON, W.C.**

---

*Sole Agents also for BRIET'S GAZOGENES and SYPHONS.*



**PATENT SODA WATER BOTTLES.****BARRETT & ELSERS,**

9 DACRE STREET, WESTMINSTER, LONDON, S.W.

BY ROYAL LETTERS PATENT,



DATED JUNE 2, 1874, No. 1923.

The Best, Cheapest, and  
Cleanest Stoppers before the  
Trade.

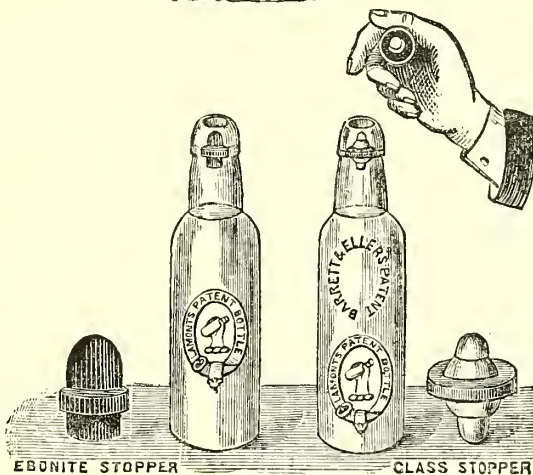
In extensive use.

No Rubber ring that can  
be taken out, or come out  
and get detached from the  
Bottle.

Great Saving effected.

No Marbles.

All Corks, Wires, String,  
and Skilled Labour super-  
seded.



Easily and Rapidly Filled,  
Opened, Cleansed & Washed.

In universal demand.

No Small Chamber or Con-  
tractions in the Neck to Pre-  
vent Thorough Washing, &c.

No Marbles.

Perfectly Fitting Stoppers.

No Leakage.

BARRETT & ELSERS' FILLING MACHINES AND SYRUP PUMP COMBINED have been proved to be the Best and  
Cheapest in the market, of which now upwards of 1,000 have been sold.

**IMPORTANT NOTICE.**—Should the Bottles break, the Stoppers may be newly fitted up and used again in fresh  
Bottles, thereby being a great saving and advantage over some other Patents.

# **E. S. HINDLEY,**

## **BOURTON, DORSET.**

# **SMALL STEAM ENGINES**

*(Economical in Fuel and in First Cost).*

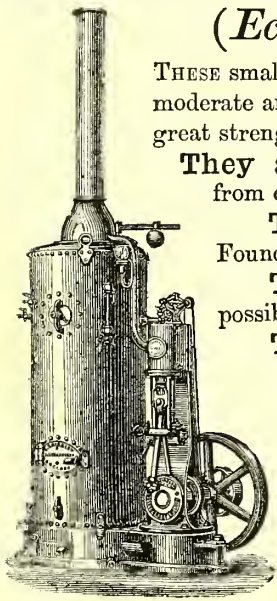
THESE small Engines are specially adapted for driving Soda Water Machinery wherever a moderate amount of cheap power is required. They combine simplicity, compactness, and great strength, are easily managed, occupy very little space, and require no fixing.

**They are available at any time,** as steam can be got up in half an hour from cold water.

**They require no fixing,** being erected on a Cast-Iron Water Tank Foundation.

**They are simple** in construction, and, having as few working parts as possible, are not likely to get out of repair.

**They can be driven by a boy.** Can be made to burn **GAS** instead of Coal.



Nominal horse power...	1	1½	2	3	4	5	6	8	10
Engine and Boiler combined...£	39	47	55	70	88	100	115	135	157
Engine and Boiler on three Wheels, with Handle.....£	41	49	57	75	95	110	125	145	167

**ALL SIZES IN STOCK—DELIVERED FREE TO ANY STATION**

*Illustrated Catalogues with full particulars on application.*

# WILHELMS QUELLE.

NATURAL MINERAL WATER.  
SPARKLING. EFFERVESCING. INVIGORATING.

"The Beau Ideal of Table Water."—LONDON FIGARO.

"The Pearl of Table Waters."—MORNING POST.

ABSOLUTELY  
PURE.

WILHELMS QUELLE.

HEAD OFFICE—  
7 BILLITER SQUARE, E.C.

"Highly recommended."—NAVAL AND MILITARY GAZETTE.

"Remarkable for its perfect clearness, great purity, and agreeable flavour."—LONDON FIGARO.

"Has the recommendation of the very highest names in the medical world."—ILLUSTRATED SPORTING AND DRAMATIC NEWS.

"Will greatly promote digestion in many cases of chronic dyspepsia."—  
MORELL MACKENZIE, M.D.

WILHELMS QUELLE.

"Develops the bouquet of the more delicate wines, which are deteriorated by admixture with most mineral waters."—JOHN HARLEY, M.D.

PRICE.—50 large Bottles, 25s.; 100 small Bottles, 40s. Delivered free within four miles radius of Charing Cross. Smaller quantities can be obtained from all Chemists and Grocers. Patent Corks may be had, by which a great saving is obtained.

For detailed Price Lists apply to Head Office of the WILHELMS QUELLE,

7 BILLITER SQUARE, E.C.



LONDON, 1862.



LONDON, 1873-74.



PARIS, 1867-78.



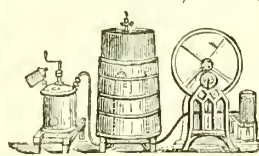
VIENNA, 1873.



PHILADELPHIA, 1876.



CAPE, 1877.



## SODA WATER MACHINERY,

And all accessories connected with the business.

HANDSOME MARBLE COUNTER FOUNTAINS,

For dispensing Iced Fruit Drinks.

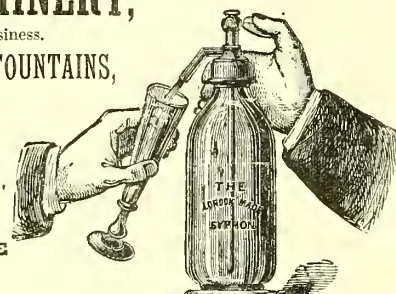
MACHINES FROM 30 POUNDS.

Sole Agents for Codd's Patent Globe-Stoppered Soda Water Bottles.

In use by over 500 established Soda Water Makers in England alone.

SOLE MAKERS OF THE IMPROVED LONDON-MADE  
SYPHON, 2s. each in quantities.

CATALOGUE FORWARDED FREE.

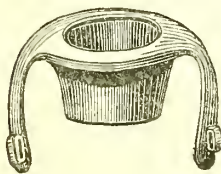


THE "LONDON-MADE" SYPHON.

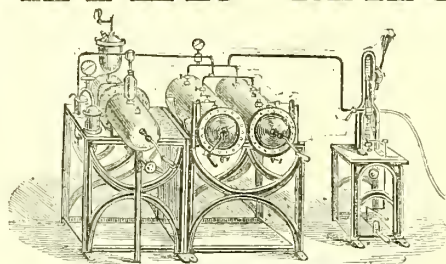
BARNETT, SON & FOSTER, 23<sup>rd</sup> Forston St., Shepherdess Walk, City Road, London, N.

## SODA-WATER MACHINERY.

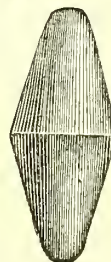
PATENT NOZZLE



FITS ANY BOTTLE.



CONE STOPPER.



BALL STOPPER.



SODA WATER MACHINE COMPLETE, WITH RACK.

DAVENPORT'S NOZZLE AND STOPPER is the best Patent for utilising old Bottles, and converting them into Patents. No Corks or Wire, and saving entire cost in one season. The New Nickel-plated Nozzle makes this the most attractive Patent in use. Trial allowed. Prices lowered. Send for Samples. New Bottles ready fitted for use now supplied. Catalogues of Soda-Water Machines, Ice-Making Machines, Engines, Boilers, Copper Cylinders, Syphons, Seltzogenes, Filters, &c., and all accessories to the Soda-Water Trade.

AGENTS FOR HAYWARD TYLER & CO'S SODA-WATER MACHINERY.

" " BARRETT & ELSERS' Patent Stoppers in Lamont's Bottles.

Illustrated Catalogues, of sixty-four pages, post free to all parts of the World.

DAVENPORT & CO., Soda-Water Machinists and General Machinery Agents,  
99<sup>n</sup> HIGH HOLBORN, LONDON.



# HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(GUARANTEED PURE AND FREE FROM CAPSICUM.)

Trade Price, 5s. per lb.

This highly concentrated Essence has the purest Jamaica Ginger flavour and aroma, is highly adapted for the manufacture of Aërated Waters, and for all dietetic, medicinal, and pharmaceutical purposes.

THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under 2 $\frac{3}{4}$ d. per dozen bottles.

Dose 10 or 15 drops to half-a-teaspoonful in water.

## THE COMPOUND ESSENCE

(GUARANTEED PURE AND FREE FROM CAPSICUM.)

Trade Price, 5s. 6d. per lb.

This Essence, which is an addition of *Vanilla, Lemon, and other flavours* to the above, is strongly recommended for the manufacture of Ginger Beer, Wines, &c., to which it imparts with the GINGER a PECULIARLY FINE FRUITY FLAVOUR and AROMA. THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under 3d. per dozen bottles.

*Directions for the use of this and the preceding Essence.*

For GINGER BEER, CORDIALS, &c., 8 fluid ounces will be required to make inclusively one gallon of Syrup, or 1 in 20. For WINES, one Pint of Essence will flavour 5 gallons, or 1 in 40.

## THE COMPOUND FORTIFIED ESSENCE

Specially adapted for the Manufacture of

## GINGER ALE.

Trade Price, 5s. 6d. per lb.

THIS ESSENCE, besides its special adaptation as above, is strongly recommended for the manufacture of GINGER BEER and other kinds of Aërated Beverages, especially in those cases where it is desired to impart to those drinks at a SMALL COST the FULLEST amount of PUNGENCY with the FINE GINGER AROMA and FRUITY FLAVOURS of the LAST-MENTIONED ESSENCE.

DIRECTIONS.—For the manufacture of GINGER ALE, One Pint will be required inclusively for four gallons of Syrup, or five fluid ounces in each gallon. For GINGER BEER or GINGERADE One Pint in five gallons Syrup, or four fluid ounces in each gallon. THE COST of this Essence in the manufacture of GINGER ALE is 1 $\frac{3}{4}$ d. per dozen bottles, and for GINGER BEER or GINGERADE a little under 1 $\frac{1}{2}$ d. per dozen bottles.

### MEDICAL AND OTHER OPINIONS ON THE SOLUBLE ESSENCE:—

"Singularity free from resin."—*The Lancet*, London, July 13th, 1878.

"It is a pure, elegant preparation, and is free from resinous matter. Ginger Beer made with it is clear and transparent, has the aroma and flavour of the Ginger, and is very pleasing to the palate."—*Medical Times and Gazette*, London, March 16th, 1878.

"It should entirely supersede the official preparation of the *British Pharmacopoeia*. The Ginger Beer made with this pure TINCTURE OF GINGER is extremely grateful and palatable. It is clear and bright as water; in fact, it will be scarcely recognised under the old name, and is CERTAINLY PREFERABLE TO SOME WINES we have tasted under the name of CHAMPAGNE."—*Medical Press*, London, March 20th, 1878.

"It is a Pharmaceutical Desideratum. Ginger Beer manufactured from this ESSENCE has the purest Jamaica Ginger Aroma, distinguishable as soon as poured out. It is a beverage fit for any gentleman's table, and ought to attain great popularity."—*The Chemist and Druggist*, London, November 15th, 1877.

"Contains the Essential Oil or Aromatic constituent of the root, has the Aroma of Ginger without the unpleasant taste of the resin, and is specially adapted for flavouring Ginger Beer."—*Pharmaceutical Journal*, London, December, 1877.

"It is really necessary that a superior Ginger Beer should be introduced to the public, and in Mr. Hay's Ginger Essence we find the very ingredient to bring about such a desideratum."—*Mineral Water Trade Recorder*, London, May 1st, 1878.

PREPARED BY

**W. HAY, Manufacturing Chemist,**  
**4 REGENT'S TERRACE, ANLABY ROAD, HULL.**

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists, 5 Coleman St., London, E.C.

# SILICATED CARBON FILTERS.

## DOMESTIC FILTER, NO. 27.



Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.

All sizes of this pattern can now be had with Patent Ice Compartment, which renders this Filter the most perfect of Refrigerators.

		PRICES.		With Ice Compartment.	
No. 0, capacity	$\frac{1}{2}$ gall.	..	10s. 6d.	..	—
No. A, "	1 "	..	14s. 6d.	..	17s. 6d.
No. B, "	2 "	..	21s. 0d.	..	25s. 0d.
No. C, "	4 "	..	32s. 0d.	..	36s. 0d.
No. D, "	6 "	..	42s. 0d.	..	48s. 0d.
No. E, "	8 "	..	52s. 0d.	..	60s. 0d.
No. F, "	12 "	..	70s. 0d.	..	80s. 0d.

## UNIQUE STONEWARE FILTER, NO. 28.

No House should be considered as thoroughly furnished until it is supplied with one or more good Filters.

No Water should be used for Drinking or Cooking without being Filtered.

This Filter is made of a New Ornamental Stoneware, similar in shape to the Domestic Filter, and of two-gallon capacity. When arranged in a Hall or Conservatory, side by side with evergreens, the effect is very pleasing.

Price, with Silver-plated Tap, 30s.



## MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR  
Mansions, Schools, Hospitals, Public  
Institutions, Breweries, Distilleries,  
Soda Water Manufactories,  
Dye Works,

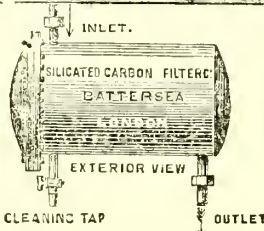
And all other Establishments where large quantities of

### PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows:—

A, $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch pipe .. ..	£6 6s.
B, 1-inch pipe .. ..	£9 9s.
C, $1\frac{1}{2}$ -inch, $1\frac{1}{2}$ -inch pipe .. ..	£15 15s.
D, 2-inch pipe .. ..	£26 5s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver a supply of purified water at a rate of 50 to 1,000 gallons per hour, according to size.

Special Contracts entered into  
for Large Works, Institutions,  
&c., &c.,

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE.

Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

## FILTERS FOR SHIP'S CABIN USE,

### No. 26.

As supplied to the Admiralty, and used on board the first Steam Life-Ship "Peronelle."

Made in hard Stoneware, strongly cased in Wicker, and fitted with Silver-plated Tap.



	$\frac{1}{2}$ -gallon capacity	..	..	..	s.	d.
1	"	..	..	..	10	6
2	"	..	..	..	15	0
4	"	..	..	..	22	0
6	"	..	..	..	36	0
8	"	..	..	..	48	0
10	"	..	..	..	57	6
		..	..	..	68	0

These Filters are invaluable on board ship, furnishing a supply of pure and wholesome water during a long voyage.

## NEW DOUBLE-ACTION FILTER,

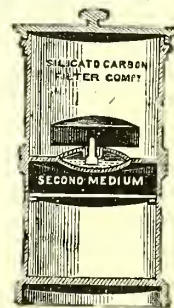
### No. 35.

In Cream-coloured Stoneware.

This Filter is specially adapted for rain water, and also for very hard or muddy water. The second medium being protected by a slab, no water can possibly reach it until after passing through the first medium. By this means a double process of filtration is effected, whilst at the same time the impurities contained in the water are deposited on the slab, and may be easily cleansed away with a sponge.

Prices complete—A, 2 gallons, 30s.;  
B, 5 gallons, 50s.

Extra Blocks supplied for these Filters at 10s. 6d. and 15s. each.



## REFRIGERATIVE CANVAS FILTERS, No. 32,

For hanging in Verandahs, Tents, or Huts, and also for travelling in hot climates. Prices—A, 21s.; B, 25s.

A LIBERAL DISCOUNT TO THE TRADE.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

PARIS: 131 Boulevard Sebastopol.

NEW YORK: 191 William Street (H. R. Mensing, Agent).

HAMBURG: 9 Deichstrasse (Joseph Schmutzer & Co., Agents).



# SILICATED CARBON FILTERS.

## SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.

Each of these portable Filters may be

They are readily cleaned from sedimentary matter by merely blowing through the tube, and brushing the surface of the filtering medium.

- |  |      |
|--|------|
| A.—Pocket Filter, 2½ inches diameter, in porcelain, with glass mouthpiece, in decorated metal box .. .. .                                    | 2 6  |
| B.—Ditto, 3½ inches diameter, in best stoneware .. .. .  | 5 0  |
| Ditto, " " with silver-plated tap .. .. .  | 7 0  |
| C.—Emigrant's, 5 inches diameter, with silver-plated tap .. .. .   | 12 0 |
| G.—Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and in Zululand, and to the Ashantee Expedition .. .. . | 3 6  |
| H.—Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits .. .. .            | 5 0  |



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

## TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

### PRICES.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.  
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

## POROUS TERRA COTTA FILTER, NO. 29.

Shape of this Filter as Fig. No. 24.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.

## SILICATED CARBON BLOCKS.

2 in., 1s. 6d.; 2½ in., 2s. 6d.; 2¾ in., 3s.; 3½ in., 4s.; 4¾ in., 5s. 6d. ea.  
SPECIAL QUOTATIONS FOR QUANTITIES.

## PRIZE FILTER,

This Filter is constructed in the form and colour of an Etruscan Vase, having inside it a movable pan, into which the Silicated Carbon filtering medium is fitted.



## PATTERN NO. 23.

The exterior is made of Porous Ware, which acts with remarkable power as a Refrigerator, keeping the water deliciously cool. Capacity, about Two Gallons.

PRICE, WITH SILVER-PLATED TAP, £3 10s.

## DINING-ROOM FILTER, No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

### PRICES.

A .. .. .	35s.
B .. .. .	80s.
A, with Ice Compartment (New Patent) .. .. .	42s.
B, with Ice Compartment (New Patent) .. .. .	100s.

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

## REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

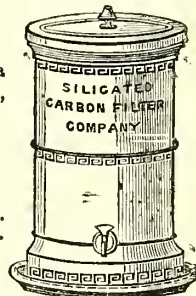
Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A

COOL DRAUGHT OF PURE WATER.

Price, with Silver-plated Tap .. .. . 31s. 6d.  
Ditto, ditto, with Ice Compartment .. .. . 42s. 0d.  
Capacity, Two Gallons.

Specially adapted for Tropical Climates.



**PORTABLE FILTER, No. 34,** for Travellers at Hotels, Families at the Seaside, Pic-nics, &c. Made in Marbled Porcelain, with Cover. Can be placed in a jug, decanter, or other vessel. Price 7s. 6d. each.

**SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.**

# OZOKERIT.

Grand Medal,  
MOSCOW, 1872.



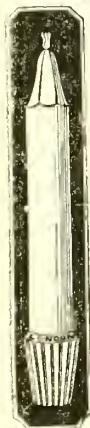
Grand Medal,  
VIENNA, 1873.

PATENTED.

MADE TO ALL SIZES.

At the CENTENNIAL PHILADELPHIA EXHIBITION the Highest Honours  
WERE AWARDED TO **J. C. & J. FIELD** FOR THEIR EXHIBIT OF

## CANDLES.



PATENTEES AND ORIGINAL MANUFACTURERS OF SELF-FITTING CANDLES.

Made in all Sizes. | Made in all Colours. | Burn to the End. | Require no Scraping.  
Made in all Qualities. | Fit all Sockets. | Require no Cutting. | Are Safe, Economical, Cleanly.

CANDLES SPECIALLY ADAPTED FOR EXPORTATION TO HOT CLIMATES.

**OZOKERIT** (Patented). In handsome 1-lb. Packets.

These beautiful Candles are made in ALL SIZES, and from their great hardness and non-liability to bend when exposed to a high temperature, are well adapted for Ball Rooms and Tropical Climates. They possess the highest illuminating power of all descriptions of Candles.



Tablets 5 to 1b.

### UNITED SERVICE SOAP,

*Of highly emollient properties, and singular durability of Perfume.*

WHOLESALE DETAILED PRICE LISTS OF

**J. C. & J. FIELD**, Patent Candle Works, LAMBETH MARSH, LONDON, S.E.



Tablets 3 to 1b. 1

### HANDSOME CHEMIST'S SHOP FITTED COMPLETE

WITH ALL NEW GOODS,  
INCLUDING GLASS SHOW CASES,  
GOLD-LABELLED SHOP BOTTLES, JARS, &c.,  
**For £75.**

Retail and Dispensing Counters, Shop Drawers, Window Enclosures, Wall and Counter Bent, Flat, and Upright Show Cases, Dispensing Screens, Show and Soda-water Stands, Sponge and Cigar Cases, Tea and Coffee Bins, Window Carboys, Specie Jars, Labelled Shop Bottles and Jars, Store Bottles and Boxes, Tea, Coffee, and Sugar Mills, Tea, Coffee, and Store Canisters, Oil and Treacle Cisterns, and every description of new and secondhand Shop Fixtures, Office Furniture, and Utensils required by the various Home and Colonial Trades. Three extra Show Rooms have just been added, to which an inspection is invited.

## LLOYD RAYNER,

WHOLESALE AND EXPORT MANUFACTURER OF

MEDICAL AND GENERAL SHOP FITTINGS,  
EXHIBITION AND COUNTER SHOW CASES,  
SHOP FRONT BUILDER,  
FIXTURE DEALER, AND MEDICAL LABELLER.

SHOW ROOMS AND OFFICES:

**333 Kingsland Road.**

FACTORIES:

2 Downham Road, Kingsland, and Whitmore Road,  
Hoxton, London, N.

## CHOICE PACKED TOBACCOS.

Best Birdseye, in  $\frac{1}{4}$  lb. tins; also  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb. packets.

Superfine Birdseye, in  $\frac{1}{4}$  lb. tins; also  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb. "

Imperial Birdseye, Foil, 2 oz., 1 oz.

"Yellow Honey from Down South." In  $\frac{1}{4}$  lb. tins; also

This Tobacco is the most highly esteemed in the States. Foil, 2 oz., 1 oz.

"Virgin State," Selected from the Finest Virginia Leaf. In  $\frac{1}{4}$  lb. tins; also

Superfine Oriental Returns, In  $\frac{1}{4}$  lb. tins; also

A Mild Smoking Tobacco. Foil, 2 oz., 1 oz.

Fine Turkey Returns, Foil, 2 oz., 1 oz.

### PACKED SHAG.

Superfine Shag ...  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.

Fine Shag ...  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.

Fine Ragg ...  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.

For Retailing at 3d. per oz. { Good Shag ...  $\frac{1}{4}$  lb.,  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.

{ "Old Honest" ...  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.,  $\frac{1}{32}$  lb.

{ "Uncle Tom" ...  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.,  $\frac{1}{32}$  lb.

{ "Aunt Chloe" ...  $\frac{1}{8}$  lb.,  $\frac{1}{16}$  lb.,  $\frac{1}{32}$  lb.

**E. & W. ANSTIE,**  
MANUFACTURERS,  
**DEVIZES, WILTS.**

ESTABLISHED ONE HUNDRED AND FIFTY YEARS.



SEABURY & JOHNSON, 11 Jewin Crescent, Aldersgate Street, E.C.



# ENO'S "FRUIT SALT,"

"FRUIT SALINE," OR "FRUIT POWDER."

## ENO v. STEPHENS IN THE COURT OF CHANCERY.

### Shorthand Writer's Notes of Vice-Chancellor Bacon's Summing-up and Judgment.

Sir HENRY JACKSON, Q.C., on proceeding to sum up in detail on the evidence and arguments in the case, was stopped by the VICE-CHANCELLOR in the following words:—

Sir Henry Jackson, I do not think I ought to trouble you. The case has been discussed at very great length. I confess somewhat of my astonishment when Mr. Hemming declined to adopt the evidence as it was before the Court of Appeal, and put the Plaintiff to prove by the same evidence the same facts which had been proved before, I was under the impression that he meant to call witnesses on his own behalf. If that had been, as it probably may have been his intention at that time, there would have been a reason perhaps for repeating over again at very great length and considerable expense, of course to somebody, the evidence upon which the Court of Appeal had acted—I say nothing about what was done in this Court, but the Court of Appeal had acted upon that evidence. The case, however, concludes, and no evidence whatever is adduced by the Defendant—not even his own statement in his Defence is verified by his own affidavit. What is to be done with a case like that? The whole principle of the case was decided upon the first occasion. The Court of Appeal thought it right to adopt that restriction which I had thought it right to adopt, not to extend the Injunction further than the then present exigency of the occasion required. Not one word of the judgment of the Court of Appeal shows that there should be any restriction, or that there should be any restriction when the case came on for hearing. Now it comes on for hearing upon precisely the same evidence, and the evidence, among other things, is, that in the circular which accompanies this bottle of Salt, the words to which the Plaintiff particularly objects are repeated by the Defendant, and repeated by means of copying the Plaintiff's circular. Mr. Giffard says nobody buying the bottle would think of looking at the circular, for it is enclosed in the wrapper, and not even visible to the eye. But the case is one in which the Plaintiff complains of the general similarity and the general appearance of the names which are used by the Defendant, and if a purchaser entertained any doubt, if he was puzzled for a moment between "Vinous" or "Vinous," and Eno's—the sounds being, in one mode of pronunciation, very much alike—if he opened the wrapper and read the circular he would say, My doubts are removed; this is what I want—I want Fruit Saline, and here it is—the circular says it is "Fruit Saline."

The Defendant in his statement at the end of the fourth paragraph says he has not "at any time since the month of August, 1877, used the words Fruit Saline, or Fruit Powder, in any label or advertisement or otherwise in connection with the sale of the said preparation." Under the old system if a defendant had put in his answer, as he must, upon oath, he might perhaps have read that passage and said "the Plaintiff's allegation in that respect is denied." The Defence is not put in on oath and the Defendant declines to pledge his oath to that fact. But it does not rest there; for the evidence is clear and conclusive that after the month of August, 1877, when the Plaintiff, not without some degree of forbearance, as it seems to me, was content to take the Defendant's word that he would not repeat that offence which the Plaintiff complained was doing him that injury which he thought he was suffering, he did, in spite of his promise, repeat that which the Plaintiff called an offence and believed to be an injury to him. The case comes to a hearing, the Defendant insists upon the Plaintiff proving his case. At the Defendant's instance the Plaintiff has proved his case, and, among other things, has proved the utter falsehood of that Defence which is set up in the paragraph which I have read. The matter, therefore, is wholly without doubt, without defence, without excuse of any kind that I can perceive, because, when I am told that I must consider what the intention of the parties was, and when I am told, moreover, that there is no evidence that anybody has been deceived, and the Defendant in his defence says nobody has been deceived, his intention to deceive is not contradicted. That is what the Plaintiff imputes to him; and that is what, I think, the Plaintiff establishes not only from the simplicity of the sign, but from the fact that, when the complaint was first made in August, 1877, they were words which the Defendant admitted he had no right to use. For what reason? Because they were calculated to deceive—calculated to represent the Defendant's goods as those which the Plaintiff was selling under the title which he had adopted.

Upon the general case, therefore, in my opinion, the matter is beyond all doubt. It is proved that the use of the word "Fruit" with other substantives, "Saline" and "Salt," and so on, has been made by the Defendant since the time when he promised not to make it, when he admitted it was unlawful, and which I have no doubt whatever was wholly unlawful. It is said that he endeavoured to keep his promise by pasting something over the word "Fruit." Well, if that meant anything it is a plain admission of the justice of the Plaintiff's claim in that respect. But how can I consider that that is keeping his promise? Whether that pasting over was to be effectual or not would depend upon the consistency of the paste or glue, or perhaps the humidity of the atmosphere or any other accident. That there was no intention to perform his promise, I am satisfied of, and that there has been no performance of his promise I think is clear.

Upon the general case, therefore, I think the Plaintiff is entitled not only to the Injunction in the terms of the Interlocutory Order, but upon those more extensive terms which the Plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

Then there is another subject which is so intimately connected with that that I desired to hear them both together, and I am very glad I did, because, as Mr. Giffard has just told me, that is the main question in dispute between the parties. For the Injunction the Defendant does not seem to care much, though he has violated it, in my opinion, plainly; but he says the question is whether there is a title to register this Trade Mark for which the Defendant proposes to apply. Now that depends upon the words of the Act of Parliament which have been used, the more important of which are "so resembling as to be calculated to deceive." That is a question not to be decided by eyesight; I am invited to lay these two devices side by side, and, since they are not identical and since there are

great differences in their external appearance, to decide that they are not calculated to deceive. To that word DECEIVE I have no right to criticise or quarrel with; it is used in the Act of Parliament, and if I were to give one sense to it, it is plainly in my judgment calculated by the Defendant, meant and intended by him, to deceive any person who is not vigilant enough either in eye or in ear to detect at once the difference between Vinous and Eno's, and the difference between Fruit Salt and any other salt, Eno's title being plainly upon his Trade Mark, Eno's Fruit Salt.

It is not, as I have said, by sight; it is not by the use of a microscope; it is by any other means of detecting more or less of resemblance that you can decide a question which the statute contemplates by using the words that I have referred to. But it is whether the Registrar, whose office it is to register, is satisfied before he performs his function by registering the mark, that the applicant's mark does so resemble as to be calculated to deceive. Can any living man doubt that it is not only calculated—that is intended—but that it is also calculated—that is to say, meant and contrived for the purpose of deceiving—else why does he do it? The world is wide, as has been said in the Judgment referred to, and all things in the animate and inanimate world are open to the Defendant to make a device which shall distinguish his goods from those of any other person. But the Plaintiff having appropriated to himself, and enjoyed for years a device in which the principal characteristic consists of a bunch of grapes, with a Latin motto, and the specific description which relates to Eno's Fruit Salt, the Defendant proposes to register a design in which the principal device is the stem of a vine with a bunch of grapes and some leaves, and a Latin motto around it, and it is to be called "Vinous Salt." If there was nothing in the case but the contrast of these two things, it might, perhaps, to some persons, who trusted only to their eyes, be said there was no resemblance between them, or no sufficient resemblance; but the Registrar is bound to take the whole case into his consideration; he is not to be baffled by any mere similarity or dissimilarity. That is not the way that the Court of Appeal, in the latest case that was before it—the Sheffield case—dealt with the question. The Defendant there had as good a right as anybody in the world could have to stamp his own crest or coat of arms, or anything else, upon his commodities. Nobody could dispute it, and nobody, putting the two things together, could say they were so much alike as to deceive. Mr. Hemming insisted that the stamping, being made on a hard metal, was likely to be blurred, and the persons to be deceived. I have a very clear recollection of that case, and I say it would be impossible for a man with eyes, or with one eye, in his head to mistake the device in that case for the device which the Plaintiff desired there to use.

Mr. HEMMING:—Your Lordship will pardon me, I was only quoting the Master of the Rolls.

The VICE-CHANCELLOR:—I know, and have also clearly in my mind what the Master of the Rolls said and what he did not only in the "Dog and Porridge Pot" case, but in that case. The Master of the Rolls' judgment takes a wide and comprehensive view of the subject. He refers to the statute only for the purpose of verifying and corroborating that view, but what he said was "an honest man who wants to mark his goods never thinks of taking the device partly or wholly which some other tradesman is employing for the purpose of marking his goods," and that I take to be the true principle of the case.

And, taking all these things together, the Plaintiff's evidence in the first place, the total absence of evidence or statement on the part of the Defendant, excepting the incoherent and elaborate statements which Counsel have addressed to me, there being no statement whatever by him at any time except that he admitted he had done wrong in using the word "Fruit," I am asked to say that there is no such resemblance between those two devices as, between those two men, are calculated to mislead in reference to the commodities tendered in the shape in which they are sent into the world. I think I should be wasting time if I observed further upon it. It is to me clearly manifest not only that there is sufficient resemblance to answer the strictest words of the statute, but that there is a resemblance which has been carefully and intentionally calculated to deceive. And as the Defendant will not pledge his oath to a contrary intention I cannot come to a contrary conclusion than that the Defendant is to go on in the terms in which the bill prays for it, extending it therefore beyond the Injunctions granted on the Interlocutory Order and upon the motion, to say that the Defendant is not entitled to register the device of a bunch of a vine with a bunch of grapes upon it, and a Latin motto on it and the name "Vinous Salt." There is an end of it therefore.

Sir HENRY JACKSON:—Well, my Lord, of course I must have the costs. The VICE-CHANCELLOR:—You must have the costs of both.

Sir HENRY JACKSON:—And I think I must ask the costs for the Shorthand Notes of the evidence yesterday. That your Lordship has given on occasions. It was impossible for us to avoid incurring that expense, although it has proved to be absolutely useless. Your Lordship has given it on several occasions, and I must ask your Lordship for the costs of taking the evidence.

Mr. HEMMING:—I do not think your Lordship is ever in the habit of giving costs of that kind, unless there is some special reason for taking the notes. I do not know whether my friend anticipates an appeal upon that evidence. I am sure he will not say so, and I do not think the Court is in the habit of allowing the costs of a shorthand note of the evidence under such circumstances. It is not taken by arrangement. It is not in every case where there is an arrangement between the two sides, and even when there is an arrangement, it is not in every case that the Court allows these costs. I ask your Lordship not to say anything about them unless a general rule is laid down that in every case either party may require a shorthand writer to be employed. We know that the rule is the other way.

The VICE-CHANCELLOR:—So far from laying down any rule, my notion of this particular subject of the costs incurred by the shorthand writer is that it ought not to be done without a good and sufficient reason for it. Now the reason is to me perfectly apparent and conclusive. Sir Henry Jackson proposed to treat the evidence as he had been used in the Court of Appeal, as being put in here. Mr. Hemming objected to that, and insisted upon the witnesses being examined. In my opinion it became indispensably necessary that a record of that evidence should be kept, and that could only be done according to the present practice of this Court by the employment of a shorthand writer. Mr. Hemming therefore drew down upon his own head the necessity for the employment of a shorthand writer, and having done it without reason as I thought; and having done it without effect as I have decided, in my opinion the costs ought to be included in those costs which the Defendant is bound to pay to the Plaintiff.

Mr. HEMMING:—That does not mean any transcript—there has been no transcript taken.

Sir HENRY JACKSON:—I have the transcript here, and I was prepared to sum up this morning.

Mr. HEMMING:—There was no occasion for it.

Sir HENRY JACKSON:—I do not want of course the costs of any of the speeches: I merely take the transcript of the shorthand notes of the evidence. The VICE-CHANCELLOR:—I think that must be so, because for anything I know this day week the Lords Justices will have them in their hands.

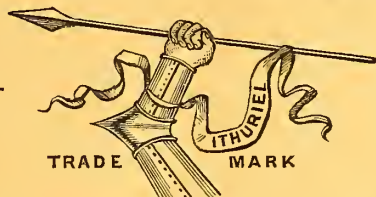
Mr. HEMMING:—Then would he time to ask for it.

Sir HENRY JACKSON:—My Lord has decided.



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